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FACULTY OF ELECTRONICS

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MASTER OF SCIENCE THESIS

Personal Data Processing Support System for
the Company in the Face of New RODO
Regulation Requirements

System wsparcia przetwarzania danych
osobowych w firmie wobec nowych wymagań
wynikających z rozporządzenia RODO

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Chapter 1

Purpose and scope of work

This work presents issues related to personal data processing in the face of General Data Protection Regulation (GDPR/RODO). Upcoming changes in regulations oblige any entity that processes data to meet certain requirements. This entity is related to, among others, enterprises and companies. The more data is being processed in such entity, the more complex structure is required to manage this data. For medium and large enterprises, amount of data being processed requires the use of advanced IT systems. In the face of RODO, such IT system should also support meeting new standard of personal data protection.

In this work will be described the value which personal data represents, origins of personal data protection, legal state in Poland before RODO, what is RODO, what it stands for and scope of changes in regulations. The available solutions will be analyzed and there will be also described proposed prototype of RODO supporting module for existing GRC system.

1.1 Description of the problem

On the 25th of May 2018, RODO will take effect. Introduced changes can be divided in two ways, these more revolutionary, and these less revolutionary. These less revolutionary are basis legal concepts or rules of personal data processing which didn't actually change since current state. These more revolutionary are connected with rules to practical application [3]. These rules assumes increasing self-reliance, but also responsibility of data administrators.

New regulation determines way of approaching to data processing called *risk based approach*. It assumes that first thing that we do during gathering and using personal data is to analyze risk that could be caused for people which data concern. Another thing is *accountability rule*. It assumes that any data administrator has a duty to introduce appropriate technical and organizational measures applying compliance with regulation requirements, but at the same time it does not describe neither any best practices nor minimal technical standards. When RODO will take effect, every administrator will have to independently decide which securities should be implemented. New regulation indicate instruments which may support administrator in making decision. This instruments are codes of conduct and certification mechanisms approved by GIODO, guidelines from European Data Protection Board or data protection officer. Besides, the ISO norms could be used as a source of practical knowledge [3].

Accountability rule also assumes demonstration by the administrator of compliance with the law. It could be realized, for example, by documentation of implemented legal instruments described in regulation or by usage of approved codes of conduct mentioned above.

Chapter 2

Personal data protection

The emergence of new technologies, over time, totally replaced traditional, manual methods of data processing. The changes have come so far that they have caused a threat to the individual. This threat was difficulties to control the flow of information about this individual and its content. It led to the occurring a problem with entering to the scope of human privacy and dilemma how to protect a man against interference in his life.

2.1 Personal data as a value

In accordance with applicable regulations, personal data are *any information regarding natural person, allowing to determine the identity of this person* [2]. The new RODO regulation is defining personal data more detailed, as *any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person* [1]. The second definition is much more specific, because it lists more exactly core characteristics of every natural person, considering also his virtual identity. What changed the most, over time, between these two legal acts is consideration of transferring a significant part of human life to the network and creating a copy of your real identity there.

One can meet the term that personal data is perceived as a new "*oil*". This metaphor is appropriate because they can be used as a product in itself and as being a substance that is a basic to other activities. On the one hand, our personal data like name, surname, or telephone number are products in itself e.g. for direct marketing. Databases filled with such data are basis in this business. The more precise these data are, the more valuable are they. For example, same name connected with phone number or address may cost around 50 and 80 groszy per record. They can be even cheaper for big orders. But in the same time, contact to the person initially interested in specific offer may cost between few and tens of zlotych. On the other hand our data may be used indirectly e.g for political, economical or social purposes. There are many examples. In the 1950s and 1960s the FBI spied on the pastor of the First Unitarian Church in Los Angeles due to his policy. For this reason members began to worry about internal unity and joint support of political goals. In 2013 the sued the NSA for internal espionage [5].

Another aspect of personal data is their storage. We live in the age of computers controlling every device. Thereby

2.2 Genesis of personal data protection

Personal data protection is closely related with human dignity, which is basis of all human rights. This close relationship has its source in the concept of privacy, which appeared for the first time in a legal context due to two american law professors, Samuel D. Warren and Louis D. Brandeis. In the article they published in 1890 year, they used concept of *right to privacy*, which is defined as right to exclusivity, separateness, loneliness and right to be let alone [4].

2.3 Historical acts of international law

2.4 Status in Poland before RODO comes into force

2.5 Threats associated with the processing of personal data

Chapter 3

RODO

- 3.1 Zakres przetwarzanych informacji
- 3.2 Nowe obowiązki informacyjne
- 3.3 Uprawnienia osób, których dane dotyczą
- 3.4 Zgoda na przetwarzanie danych osobowych
- 3.5 Zabezpieczenia
- 3.6 Dokumentacja przetwarzania danych
- 3.7 Privacy by design i privacy by default
- 3.8 Ocena skutków dla ochrony danych
- 3.9 Dane osobowe dzieci
- 3.10 Automatyczne przetwarzanie danych oparte na profilowaniu
- 3.11 Naruszenia ochrony danych
- 3.12 Inspektor danych osobowych
- 3.13 Transgraniczne przetwarzanie danych
- 3.14 Powierzenie danych
- 3.15 Podnoszenie wiedzy na temat ogólnego rozporządzenia

Chapter 4

Analiza komercyjnych rozwiązań z zakresu przetwarzania danych osobowych

4.1 RSA Archer

4.2 Microsoft GDPR

4.3 SAP

Chapter 5

Prototyp modulu smartGDPR wspierający zgodność z RODO

5.1 Rejestr danych przetwarzania

5.2 ...

Chapter 6

Wnioski

Chapter 7

Podsumowanie

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