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CIVIL LIABILITY INSURANCE OF THE ELECTRONIC CERTIFICATION CENTER. THEORY AND PRAXIS

Abstract. The dynamic development of computer science resulted in creating and sending different kinds of documents via electronic post. Each document needs to be electronically signed. In this article we deal with the problem of civil liability insurance of the electronic certification centers. The main task of those centers is to ensure the safeness of the electronic signature. In the article we present the risk and barriers of the electronic signature implementation.

Key words: civil liability insurance, center certification.

1. STATING THE PROBLEM

Building a totally computerised society became a priority in Poland. In our country we gradually observe introduction of electronic calculations to all fields of economic and social life.

One of the elements of computerising of documents, declarations, forms and data processing is the problem of electronic signature.

Introduced regulations (bill form 18th September 2001) about electronic signature gave the beginning to gradual works about the usage of electronic signature in economy practice. This wide field includes obligatory liability insurance of qualified subject rendering certification services.

The aim of this article is to state the risk of putting the electronic signature into social and economical practice. Unpredictable random effects of introducing electronic signature may be compensated by insurance protection. We assess the introduced insurance, its advantages and drawbacks.

2. THE CONCEPT OF ELECTRONIC SIGNATURE

According to article 3, bill from 18th September 2001 about electronic signature it is defined as “ electronic data, which together with the other data to which

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it is attached or logically connected, serves to identify the person who is putting the electronic signature.”

This bill also mentions the issue of safe electronic signature. Conditions for this signature to exist are as follows:

- Exclusiveness of assigning the signature to the particular person
- It is written on safe electronic devices
- Exclusiveness of controlling the person putting the signature
- Signature was connected with data to which it was linked in such a way that any change is immediately recognised. This data is unique and in the same time assigned to a particular person

Due to calculations it is impossible to create two pieces of information having the same abbreviation. Thus a result there is no risk of refusing the particular signature by replacing it with other information which would have the same 160-bite abbreviation counted by SHA-1 or RIPEMD 160’.

Point 10 of the bill states that “ during the creation of data necessary to put the electronic signature it is vital to ensure that this data with possibility close to certainty occurs once only.”

It is extremely vital to make the subjects rendering certification services aware of their duties and responsibilities. Using devices which do not meet the requirements of regulations can cause tremendous damages. It is necessary to remember that electronic signature also carries unknown dangers. It is an absolute priority to ensure maximum security and infallibility of devices.

In electronic signature there is an indicator of real time. Even though the danger of time marking is slight we should bare in mind different time zones in the world. It is important in international trade – it is connected with migration of people.

The situation may be arguable when the certificate will be made invalid in the time between putting electronic signature and its verification.

It may turn doubtful that “data serving to put the signature ,as concerns the use, is linked only with its owner and nobody else.” Yet, we should remember that in Poland there are many disabled or bedridden people who are capable of neither putting the signature nor controlling it.

3. RELIABILITY OF SAFETY DEVICES USED FOR PUTTING AND VERIFICATION OF ELECTRONIC SIGNATURES

According to calculation of rate fees it is vital to pay attention to the quality of devices used for electronic signature but especially its reliability. So far law regulations mention the publication duty of the list including such devices and state the technical conditions these devices must fulfil. It is unknown who is

responsible for their creation. It is certain that the subject rendering certification devices is not responsible for the quality of devices on the abovementioned list.

It is obvious that devices themselves and use of them in practice is dependent on the continuity of electricity delivery. Yet, we sometimes encounter the cases of short unexpected power cuts caused by different factors fe: short circuits in installations caused by lightning discharge. There arises the question whether the occurrence of these phenomena will not damage the certificates, gathered data or safety devices used for signatures. It is also good to know if there are any safety precautions in this case. What is the responsibility of subjects rendering certification services and of the users?

Doubts can arise during coping of documents. Copy and an original version can be unrecognisable. It is also a question whether the future users were well informed about the safety devices by the subject..

It is worth emphasising that there are people whose job is cryptology and no method of data encoding is perfect. Fast-developing crypto-analysis enables the codes to be broken in future.

4. BASIC BARRIERS OF INTRODUCING ELECTRONIC SIGNATURE INTO ECONOMIC PRACTICE

Although it has already been years since the bill about the electronic signature was passed, there still exist numerous barriers concerning its popularisation.

The most important are:

– High cost of receiving electronic certificate. According to gathered data from the end of year 2007 the cost ranged from 360 to 800 PLN. This amount is too high for an average citizen bearing in mind that it expires after 2 years.

– Rarity of electronic signature usage by average citizens. They only can use this certificate in city council offices, post offices, with tax declarations, in banks and in insurance companies. We are obliged to handle in tax declaration once a year only, whereas it seldom happens to go to the city council office to pay the tax or sign any other documents. Generally, we can use the certificate only a few times a year, which is not relative to its price.

– The construction of legal acts: in many legal acts concerning handing documents and making any payments customers are not informed about the possibility to use electronic signature form. It is neither recommended nor obligatory. Because of this situation it is obvious that interest among potential users is hardly visible.

– Scarce role of media in making people aware of electronic signature. There are no TV or radio programmes dealing with this topic.

– No perspective view of the electronic signature usage fe in the construction of ID cards or linking it to popular mobile phones.

Moreover, man is the weakest link in this information security system.

It is based on social engineering which states that people should do exactly what they are supposed to do, often or even in most cases not accordingly to their own rules and beliefs.

It is vital to mention here the point of view of A. Beliński concerning the errors that can occur during the usage of electronic signature. According to Beliński's point of view it may happen that there could appear "disagreement between the will and its distinction in certain circumstances."

In civil law electronic signature is treated as an institution and its usage is the legal activity.

5. THE CONCEPT OF THE SUBJECT RENDERING CERTIFICATION SERVICES

According to EU directive the subject rendering certification services is the legal or private person who gives the certificates or any other services connected with electronic signature.

In art 3, point 15 of the electronic signature bill, it is called the qualified subject. Conditions of qualified subject rendering certification services have been stated in art 10 of abovementioned bill. Among many conditions there is one about the duty of concluding the liability insurance for the damage caused to the beneficiaries of certification services.

The bill form 18th September 2001 has introduced the duty of concluding the liability insurance for the damage caused to beneficiaries of certification services, art 10, point 4.

In the attachment to the EU directive it is stated that the subjects rendering certification services are obliged to possess enough financial means to act accordingly to the requirements of Act of Activity Insurance, and especially to take the risk of the responsibility for the damage.

In practice there are two types of qualified and unqualified certificates.

6. RESPONSIBILITY RANGE OF LIABILITY INSURANCE

The Prime Minister order of 16th December 2003, in § 2, point 1, it states that liability insurance concerns the damage "caused by actions of the person insured for the duration of liability insurance". Qualified subject rendering certification services is responsible for any damage.

In the bill about electronic signature, art 11 mentions the restrictions on the damage responsibilities of the subject rendering certification services:

- Resulting from the use of certificate beyond the range stated in certification policy, which was pointed in certificate, and especially for the damage resulting from exceeding the highest critical value unless it was revealed in certificate.
- For beneficiaries of certification services resulting from untruthfulness of data included in the certificate written for the proposal of the person putting the electronic signature

Liability insurance § 2 point 2 does not concern the damages:

1. Done by the subject who is the private person, the spouse, the closest siblings, but also by a relative in the same line or degree, by the person with whom the insured stays in stable relation or any other insured person being the partner of the subject.
2. Done by the employee of the subject or any other private person working for the subject.
3. Done by the insured person after the day of final decision about the deleting from the register of qualified subjects rendering certification services
4. Concerning the fines or resulting from war actions, riots or states of terror.

It is vital to notice that there are serious discrepancies between the range of responsibilities put on the subject rendering the services in the bill about electronic signature and the range of responsibilities included in liability insurance.

Subject rendering certification services is responsible for the quality of its services. Bad fulfilling of the duties is very general and can be interpreted in many ways. The kind of liability insurance depends on the fate occurrence, its course and circumstances.

It is obvious that in this case the responsibility is about trusting the subject and will have the delict character. But if the subject has signed the document than the liability will have a contract character. Thus we can conclude that in case of subjects rendering certification services we will talk about contract-delict liability.

It is important to know that the abovementioned liability insurance does not state the limitations in compensation paid: self-retention or franchise.

Having those limitations would weaken the burden of insurance companies and in addition would put a part of responsibilities on the beneficiaries of certification services.

Theoretically, in case of any damages the fault can lie on both sides. Thus the limitation concerning the compensations seems to be justified.

It must be remembered that the problem of damages elimination in this insurance is an unrecognised field.

Surely there should be persons qualified by insurance companies and they should have wide knowledge about the causes of the damage, its valuation, the

regulations of electronic signature etc. Perhaps the insurance companies have so well trained employees.

To calculate the rate of liability insurance properly it is vital to create the catalogue of damages possible to occur. The task is difficult since the subject rendering certification services performs numerous activities. Bad fulfilling of any of these activities can lead to legal claims. We need experience in this field.

7. GUARANTEE SUM AND ITS CONDITIONS

In obligatory liability insurance the legislator gives the boundary of this insurance in monetary units. In case of the subject rendering certification services the legislator gave the minimal guarantee sum of € 250000 for one event but not more than € 1000000 for all events.

It is hard to interpret abovementioned regulations since the legislator does not define the concept of “event” and “all events”.

The period of liability protection is not precisely stated. Thus we need to assume that this insurance will cover the period of one year as it belongs to property-personal insurance (chapter II). It is necessary to renew the insurance protection every year.

Supposing we treat the abovementioned literally, it turns out that for the single event the guarantee sum is down-limited and there are no other top limitations established by insurance company. Future experience will show how high should the lower limitation of guarantee sum be.

In the second part of guarantee sum regulation we observe the reverse situation: the legislator gives top limitation sum of liability for the series of events (at least 2 or more) which arose in the period of liability protection, but does not precise the down boundary.

In theory four minimal guarantee sums use up the top limitation of insurance company for all events.

In many different countries the guarantee sum has been established in different amounts. For instance in Slovenia it is 50 million talars (about one million zlotys), in Bulgaria it is 100000 lews, for limited certificate – 500000, but 600000 when it concerns the universal electronic signature.

It must be emphasized that guarantee sum established by insurance companies can be too small in relation to damage responsibility. This can mean the necessity to cover the difference by the subject insured.

Some authors also point out:

– The lack of criteria for the legislator to follow when it comes to establish the limitations of liability insurance.

- The lack of distinguishing the insurance character ie: whether it fulfils the thesis of delict or contract insurance.
- The role of insurance broker who should first estimate the insurance risk and insurance program and secondly propose the amount of guarantee sum and insurance fee.

For this time (2009) there are no legal claims about the amounts of insurance so it is hard to reach the precision in guarantee sum. In this case the subject insured and the qualified subject should have the decisive vote.

8. INSURANCE PRACTICE OF QUALIFIED SUBJECT RENDERING CERTIFICATION SERVICES (31.12.2008)

According to register card in Poland there are following subjects giving qualified certificates:

- Unizeto Technologies Incorporated Enterprise;
- TP/Internet Limited Company;
- National Clearing House Incorporated Enterprise.

The order of enlisting depends on the time of register entry.

Apart of the abovementioned subjects there is also Polish Securities Printing Works which renders time marking services. Moreover, Unizeto Technologies renders the services concerning time marking of data clash, verifying of online certificates status and deposit, register and repositories authority, but also collection and submitting.

Polish Securities Printing Works is insured in WARTA INSURANCE COMPANY. All other subjects rendering certification services are insured in PZU (Polish Insurance Institute). All qualified subjects render the certification services for the guarantee sum of €250000 for one event and € 1000000 for all events in the period of liability insurance.

The conditions of insurance have been based on legal acts concerned with electronic signature. Apart from this PZU has established general liability insurance conditions approved by the bill (no nz/2004/99) from 26.08.1999 which give the general framework for this kind of insurance.

It is vital to mention that WARTA has specified its range of responsibilities in this insurance and obliging itself to:

- Pay the compensation stated in the document up to the amount of insurance guaranteed sum;
- Cover the payroll of experts appointed by WARTA to establish the circumstances and range of damage;
- Cover the costs of trial carried with WARTA's consent.

There have been introduced some limitations which are as follows: not taking responsibility for:

- Damages created after the day of final decision about the deleting of subject rendering certification services from the register entry because of the use of certificate beyond the range stated in certification policy, and especially for the damage resulting from exceeding the highest critical amount of transaction provided the amount has been revealed in certificate.

The consequences of events resulting from untrue data included in certificate are beyond the range of responsibility.

9. CONCLUSIONS

The Minister of Finance directive about obligatory insurance of qualified subjects rendering certification services is the first problem. This short directive bears a lot of unregulated issues. They include:

- Inaccuracy in establishing the range of responsibility of insurance companies;
- Divergence between the range of responsibility shown in the bill about the electronic signature and the range of responsibility in liability insurance;
- The devices used for putting electronic signature are not perfect thus it can result in different negative events.

There are a lot of barriers connected with popularisation of electronic signature in economic practice.

The problems discussed in this article have not used up all issue but only signalised it.

We need further research in this field that should lead to analysis of damage which can arise in practice of certificates use.

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UBEZPIECZENIA ODPOWIEDZIALNOŚCI CYWILNEJ PODMIOTÓW PROWADZĄCYCH DZIAŁALNOŚĆ CERTYFIKACYJNĄ. TEORIA I PRAKTYKA

Dynamiczny rozwój informatyki przyczynił się do tworzenia i przesyłania drogą elektroniczną różnego rodzaju dokumentów. Każdy dokument wymaga podpisu elektronicznego. W artykule podejmujemy kwestię ubezpieczenia odpowiedzialności cywilnej podmiotów prowadzących działalność certyfikacyjną. Podmioty te mają za zadanie wprowadzić bezpieczny podpis elektroniczny. W artykule omawiamy ryzyko, bariery wprowadzania podpisu elektronicznego.

Słowa kluczowe: ubezpieczenia odpowiedzialności cywilnej, certyfikaty.