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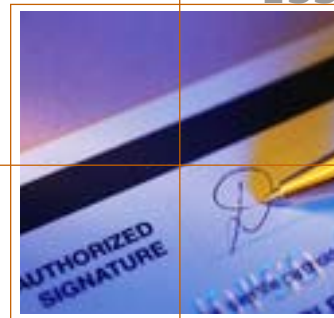
DIGITAL SIGNATURE

By Giovanni Luca Atena,
National Manager – eMarket Services
Italy

www.emarketservices.com

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Issue



The Digital Signature

Along with the increase of e-commerce, including digital communication between parts, digital signature use rose up; it helps saving time and is the only one people can use when send documents via computer. But what is its legal value? Is it valid all over the world or restrictions are given to its use? Are there cases where it is not allowed?

What is the difference between electronic and digital signatures? Different adjectives can cause confusion.

The term 'Electronic signature', a law definition, can identify all technologies that can be used to produce something similar to a hand-written signature

By 'digital signature', a technical definition, they mean a technology for securing electronic information. This technology can be used for securing software or websites or for securing information such as a contract.

According to lawyers, this technology is one of the safest instruments for securing information, and produces the same effect of a hand-written signature.

The general framework for e-signature is European 'Directive 1999/93/EC'.

According to it the Member States adjusted internal laws so to make electronic signature as valid as common signature. This Directive has two main objectives.

The first one is to make sure that all EU Member States accept the legal validity of an electronic signature so that signed documents can be considered legally valid.

The Directive describes also what kind of signature can be valid as a hand-written signature: it is the "Advanced Signature" created by a secure-signature-creation device'.

The second objective of the directive is to make sure that no national obstacles on an EU market prevent all services relating to electronic signatures from being provided.

All products and services relating to electronic signatures can circulate freely and are only subject to legislation and control by the country of origin. Member States cannot make the provision of services related to electronic signatures subject to mandatory licensing.

Following the Electronic Signatures Directive, there are three levels of electronic signature:

- the basic 'electronic signature', which should not be denied any legal effect;
- the 'advanced electronic signature', which does not as such create more legal value than a basic electronic signature; and
- the 'qualified electronic signature', which is an 'advanced electronic signature' based on a 'qualified certificate' and created with a 'secure-signature-creation device'. It is this type of signature alone that will be given the same legal value as a hand-written signature.

The main issue about e-signature concerns its value according to the different signatures.

Every type of electronic authentication will be regarded as an electronic signature as long as it is attached to or logically associated with other electronic data. Thus, biometric authentication methods, message authentication codes (mac), public key authentication

schemes, are all electronic signatures. The definition of an electronic signature in the directive does not even exclude the typed name at the bottom of an e-mail or the attachment of a scanned signature to a document.

Electronic documents to which an electronic signature has been appended cannot be denied legal validity by a court just because they are made by electronic means; this can happen because it judges that the security offered was not high enough to render it trustworthy. In addition, contracting parties can still agree that they will not use electronic signatures or that they will use other technologies.

EC Directive states the requirements for a signature to be considered "Advanced" and then fully valid; e-signature must be:

- uniquely linked to the signatory;
- capable of identifying the signatory;
- created using means that the signatory can maintain under his sole control;
- linked to the data to which it relates in such a manner that any subsequent change of the data is detectable.

An 'advanced electronic signature' when is used in combination with a so-called 'qualified certificate' and is created with a so-called 'secure-signature-creation device' will have special legal value as a hand-written signature.

Any kind of service relating to electronic signatures is regarded as a certification service; they can be provided without positive agreement of any kind from national authorities.

This doesn't mean that there are no controls over certification: Member States must create a supervisory system to monitor qualified-certificate-issuing certification service providers established on their territory.

Links and references

<http://www.abanet.org/scitech/ec/isc/dsgfree.html>

<http://www.digsigtrust.com/home.html>