Electronic communication, open networks safety: electronic signatures, common regulatory framework

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The Commission has prepared this report in order to assess and analyse the operation of the 1999 Directive on electronic signatures (Directive 1999/93/EC). To recall, the main objective of the Directive was the creation of a Community framework for the use of electronic signatures, allowing for the free flow of electronic signature products and services of a cross border nature and to ensure a basic legal recognition of signatures. The reason behind the adoption of the Directive was to avoid the creation of differing national legislation with differing requirements which could put the effective establishment of an internal market for electronic signatures at risk. Various types of electronic signatures are enshrined in the Directive and include a simplified “electronic signature” (based on pin-code technology), an advanced electronic signature (based on a PKI or public key infrastructure technology) and a third signature often referred to a “qualified electronic signature”.

Regarding the electronic signature’s effect on the internal market the report notes that the up-take of electronic signatures has been slower than originally expected although the use of e-banking is on the increase across the EU. According to this report, there is no simple answer as to why the market for electronic signatures has not developed faster. There are, however, a number of technical challenges associated with electronic signatures that could be the root cause for such a slow up-take. PKI technology, for example, is notoriously complex. The lack of technical interoperability at national and at a cross-border level causes further obstacle for the market acceptance of e-signatures. The resulting effect has been the creation of many isolated islands of e-signature applications, where certificates can only be used for one single application. Today, in the PKI environment, the smart card is the most widely used signature creation device because it provides a means to store the private key securely.

Although the use of e-signatures is not as widely used as had been anticipated the Commission, nevertheless, notes that a legislative framework for e-signatures offers a number of opportunities in other regulatory environments. Thus, even if the demand for the deployment of PKI is something that cannot be created by legislation, the Commission still considers the introduction of electronic signatures an important tool for the development of other information society services. This is particularly the case for the new Public Procurement Directives, where the use of e-signatures is central to the operational use of e-procurement systems across the EU.

To conclude, the Directive has succeeded in introducing legal clarity and certainty with respect to the general admissibility of electronic signatures. Against this background the Commission considers that the objectives of the Directive have been largely fulfilled and that there is no clear need for its revision. As far as the internal market is concerned the uptake and use of e-signatures has been much slower than was previously expected. Users still do not have a single electronic certificate to sign documents or transactions with in the digital environment in the same way that they currently do with paper. As a result it is difficult for the Commission to assess, at this stage, what effect the free circulation of electronic signatures has had on the internal market. There are, however, a number of applications which may, in future, trigger a market growth. The use of e-signatures in e-government services being one. The need for secure electronic means of identification to access and use public services is essential for EU citizens which will undoubtedly promote the use of electronic signatures.

Bearing the above in mind, the Commission will continue to encourage the development of e-signature services and applications and will continue to monitor the e-signature market. Particular emphasis will be given to the interoperability and cross-border use of electronic signatures. The Commission will encourage further standardisation work in order to promote the interoperability and use of all kinds of technologies for qualified electronic signature in the internal market. In 2006 it will prepare a report on standards for electronic signatures.