



## EU prepares for a directive on digital signatures to boost electronic commerce

**The European Commission's recent *Communication on Digital Signatures and Encryption* paves the way for a Directive. A common European framework for digital signatures and encryption is needed if a secure environment with adequate privacy protection is to be created for electronic commerce.**

The European Commission is a strong advocate for electronic commerce, which it sees as a vital element of the global information society. In its April 1997 *Communication on Electronic Commerce*, the Commission announced that it intended to guarantee the free movement of encryption technologies and products. A further promise was to make an initiative on digital signatures. The current *Communication* of October 1997, entitled *Towards A European Framework for Digital Signatures and Encryption*, combines these policies.

It has been recognised that customer trust in the security of electronic commerce, especially on open networks such as the Internet, is essential. If individuals fear that their communications and transactions can be tampered with, electronic commerce will not flourish. In order to create a secure and trustworthy environment, the Commission promotes the adoption of digital signatures which can be used to prove the origin of the data, and to detect any changes in it. In addition, data can be encrypted to provide for confidentiality.

Some EU Member States have already taken steps to introduce legislation on digital signatures. Germany and Italy have laws in place, and in some other Member States there have been consultations and discussions within their administrations. The EU is now worried that the different approaches might become a barrier to commerce, and sees that a common framework needs to be operative by the year 2000.

### **Need for common certification system**

The verification of authenticity and integrity of data by digital signatures requires a third party which is mutually trusted by both the sender and

the recipient. These certification authorities, sometimes referred to as Trusted Third Parties, must be recognised in different countries. This could be arranged by mutual recognition provisions in national laws, or harmonised certification services.

At the moment, there are no uniform requirements for certification authorities in the European Union. The Commission believes that the lack of a common encryption environment will hinder the development of electronic commerce. It suggests that harmonisation of certification authorities should apply only to establishing the essential requirements. Any technical details would be left to standardisation bodies.

The Commission takes the view that licensed certification authorities could exist together with non-licensed ones, established according to a common European certification requirement.

### **Encryption export regulations rejected**

At the moment, the Dual-Use Regulation of 1994 restricts the export of certain encryption products outside the Community without authorisation. Within the Community, a licence procedure applies. In addition, one Member State, France, has domestic control of encryption, which is now being changed. The Commission recommends the dismantling of intra-Community controls in order to ensure that encryption products are available, and that there is choice between different products and services.

Eventually, the question of encryption needs to be resolved on a global level. The Commission regards the key escrow scheme, favoured by the USA, as costly and vulnerable.

### **Proposal for a directive in 1998**

It is expected that there will be a formal proposal for a Directive before mid-1998. Prior to that, the Commission will organise an international hearing to consult governments, industry and consumers. One of the questions that will be asked is how to provide adequate privacy and personal data protection for electronic commerce.

**The Communication, COM (97) 503 is available on the Internet at <http://www.ispo.cec.be/eif/policy>, or from DG XIII of the European Commission.**