

# Qualified Electronic Signatures

Summary of Government Bill 1999/2000:117

In May 2000, the Government presented a Bill entitled **Act on Qualified Electronic Signatures etc. to the Swedish Parliament (Riksdag)**. The Bill is one of the measures set out in an action programme presented in the **Government's IT Bill An Information Society for All (1999/2000:86)**.

The proposal entails the implementation of the European Community Directive on a Community Framework for Electronic Signatures (1999/93/EC).

Even though electronic signatures are – in many cases – legally recognised and can already be used in Sweden today, the new Act will serve to build public confidence in electronic signatures and encourage the use of electronic communications in society. By enhancing security for consumers and others in connection with electronic services, the Government hopes to stimulate electronic commerce, which may in turn be of major significance for economic growth. The proposed legislation also enables the public administration to introduce more efficient routines and to increase accessibility.

This will be accomplished through the regulation of a special kind of electronic signature, known as *qualified electronic signatures*. These must be based on *qualified certificates*. The Bill states that, in order to issue a qualified certificate, a certification service provider must notify the relevant supervisory authority. The Government proposes that the National Post and Telecom Agency should be appointed as the supervisory authority.

The qualified electronic signature will be legally recognised throughout the EU, as all member states are to introduce similar legislation based on the same EC Directive.

## What are the effects of the proposed legislation?

### Qualified signatures and certificates

The new legislation governs a special kind of electronic signature that fulfils certain security requirements. Under the proposed legislation, these are called qualified electronic signatures. To be regarded as qualified, a signature must be created by a secure signature creation device (e.g. a "smart card") and based on a qualified certificate.

The purpose of using a secure signature creation device is to ensure that the signature is protected against forgery, that it is uniquely linked to the signatory and that it cannot be used by unauthorised parties. The qualified certificate should contain certain information, inter alia, about who has issued the certificate, the identity of the signatory and the period of validity.

**Smart card = A plastic card with a built-in microprocessor, which can be used to store certificates and the encryption keys used to create an electronic signature.**

## What is an electronic signature?

An electronic signature can be anything from a signed e-mail message to a digital signature that is used to verify that electronically transferred data has not been altered, that the sender is the true originator of the information and that the sender cannot later deny having sent the information. Electronic signatures are already used today, for example, for certain bank services on the Internet.

In order to use an electronic signature in an open system in which the parties do not already know one another, for example, the Internet, it is important that the parties have access to information about the signatory. A system for electronic signatures known as the Public Key Infrastructure (PKI) has therefore been developed. This system involves the issue of an electronic certificate by a trusted third party. A certificate contains information that confirms the signatory's identity.

The Public Key Infrastructure uses asymmetric encryption with a pair of keys. This means that the person who signs a message does it by using his private key and the person receiving the message can verify the identity of the signatory and that the content has not been altered by using the signatory's public key.

### Certification service providers

In order to issue qualified certificates, certification service providers must fulfil certain requirements. They must, for example, employ personnel who possess sufficient knowledge and skills, apply special systems and routines and maintain a system for storing the certificates and relevant information relating to the certificates.

They must also notify the supervisory authority that they intend to issue qualified certificates.

### Damages

Under certain circumstances, a certification service provider may be liable to compensation for any damages suffered by a natural person or entity as a result of relying on a certificate, for example, if the certificate contains erroneous information.

### Are electronic signatures legally binding?

In Sweden, contracts are binding in the majority of cases, irrespective of whether they have been concluded verbally, in writing or electronically. There are, however, a number of exceptions where a written signature is required, for example, for real property purchases and often in the case of applications, etc. in the public sector.

Electronic signatures are permissible as evidence in a court of law in the same way as written signatures. Furthermore, the Bill states that in cases which permit the use of electronic signatures, a qualified signature must always be accepted.

### Supervision

The Government proposes the National Post and Telecom Agency as the authority responsible for supervising compliance with the new act. A certification service provider must notify this authority before it may issue qualified certificates. The supervisory authority will publish a list of authorised certification service providers. It will also be empowered, for example, to carry out inspections and impose fines, should the certification service provider fail to fulfil the statutory requirements.

## The public sector as a pioneer in the use of IT

The Government believes that the public administration should serve as a good example by actively applying information technology in its own activities and in cooperation with companies and citizens.

The aim is to make the public sector more accessible and accommodating in its communication internally and externally through the development of skills and competence in the field of electronic communications. The exchange of information between public authorities, citizens and companies necessitates common security rules and standardised solutions.

Therefore the Government has commissioned the National Tax Board, together with the National Social Insurance Board, the Swedish Patent and Registration Office and the Agency for Administrative Development to examine and draw up a set of proposals on ways in which to organise responsibility for the safe management of electronic signatures within the public administration. Their recommendations are to be presented by 1 October 2000 at the latest.

#### For further information, see:

*Act on Qualified Electronic Signatures, etc.*  
Government Bill (1999/2000:117) containing the entire proposal for a new act on qualified electronic signatures.

*An Information Society for All*  
Government Bill (1999/2000:86), which presents Swedish IT policy.

Government Bills can be ordered from *Fakta Info Direkt*  
telephone: +46-8-587 671 00.

A summary of the IT Bill is available in the fact sheets:  
· *An Information Society for All* (N.2000.018)  
· *Electronic Commerce – the Focus of Continuing Initiatives* (N.2000.017)  
· *IT in Working Life* (N2000.019)

The fact sheets can be ordered from the Information Department at the Ministry of Industry, Employment and Communications, fax: +46-8-405 12 98.

The material is also available on the Ministry of Industry, Employment and Communications' website:  
[www.naring.regeringen.se](http://www.naring.regeringen.se)



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