

**Comparison of the Approach  
adopted under the  
Electronic Transactions Bill  
and in Overseas Legislation in respect of  
the Provision on Legal Recognition of  
Digital Signature/Electronic Signature**

**Introduction**

This paper compares the approach adopted under the Electronic Transactions Bill and in overseas legislation in respect of the provision on legal recognition of digital signature/electronic signature.

**United Nations Model Law on Electronic Commerce**

2. Under the United Nations Commission on International Trade Law (UNCITRAL) - Model Law on Electronic Commerce, in respect of its provision concerning legal recognition of signature, it is stated that "where a law requires a signature of a person, that requirement is met in relation to a data message if -

- (a) a method is used to identify that person and to indicate that person's approval of the information contained in the data message; and
- (b) that method is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement."

No specific reference is made to either digital signature or electronic signature in the Model Law which aims to provide a "framework" law but without setting out the details of implementation. Individual enacting economy is expected to make its own regulations to fill in the details which take account of the specific

circumstances at play in the enacting economy.

### **Digital Signature**

3. Currently, digital signature, which is a form of electronic signature, is the only technically mature technology that provides the security service of a quality that satisfies the need for user authentication, ensuring the integrity and confidentiality of data and protecting non-repudiation of transactions in an open network environment. It is commonly available in the market and is supported by open standards. We have therefore proposed to give legal recognition to digital signature in the Electronic Transactions Bill in order to provide certainty and security in electronic transactions.

4. A similar approach is adopted in the legislation of other jurisdictions as set out below -

- (a) the German Digital Signature Law;
- (b) the Italian Digital Signature Legislation;
- (c) the Malaysian Digital Signature Legislation;
- (d) the Korean Electronic Transaction Law; and
- (e) the draft Bill for Act on Digital Signature of Denmark.

5. In the USA, a number of states have adopted legislation on the basis of digital signature, namely, Utah, California, Maryland, New York, Virginia, Washington, etc. The American Bar Association has also drawn up the Digital Signature Guidelines.

6. In Japan, the Certification Authority Guidelines developed by the Electronic Commerce Promotion Council also refer to digital signature.

### **Electronic Signature**

7. In the draft United Kingdom Bill on Electronic Communications, legal recognition is given to electronic signature. The same applies to the Uniform Electronic Commerce Act of Canada.

8. In the USA, the Uniform Electronic Transactions Act refers to electronic signature, as well as digital signature as a form of electronic signature. In the legislation of other states, e.g. Arizona, Colorado, Georgia, etc, reference is made to electronic signature.

9. In the Electronic Transactions Act of Singapore, legal recognition is given to electronic signature but digital signature is regarded as a secure electronic signature and evidentiary assumptions are given to digital signature or documents on which they are affixed.

### **UNCITRAL Model**

10. In the Electronic Transactions Bill of Australia, it follows the UNCITRAL model law and has not made reference to either digital or electronic signature.

### **Summary**

11. Different jurisdictions have followed different models in enacting their legislation on electronic transactions. Some have focused on digital signature and some have made reference to electronic signature. However, in order to enhance security and certainty in electronic transactions and to address concerns associated with the risk of carrying out transactions in an open network environment in the cyberspace, we consider that legal recognition should for the time being be given to digital signature only which is currently the only technically mature technology that provides security service of a quality that satisfies the need for user authentication, ensuring the integrity and confidentiality of data and protecting non-repudiation of transactions. In the absence of common standards and readily available technology, there are also practical difficulties for the Government and others in the community to accept and deal with other forms of electronic signature for use in documents for the time being. To give legal recognition to them now may cause uncertainty and

operational problems. This will impede the adoption of electronic transactions.

12. However, we stand ready to review the legislation regularly to take account of technological developments and make amendments where appropriate in future when other forms of electronic signature become technically mature with the support of open standards and are commonly available in the market.

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