

Legislation on Electronic Transactions/Signatures of Other Jurisdictions

This note summarises our research into the treatment of electronic signature in the electronic transactions/signatures legislation of other jurisdictions.

2. The legislation that we have studied can, in general, be classified into three categories, namely, those specifying general requirements for electronic signature, those specifying digital signature and those adopting a two-tier approach.

Legislation specifying general requirements for electronic signature

3. Legislation examined under this category includes the following -

- (a) Electronic Transactions Act, New Zealand;
- (b) Uniform Electronic Transactions Act 1999, USA (for adoption by individual states);
- (c) Electronic Signatures in Global and National Commerce Act (E-Sign Act), USA (Federal); and
- (d) Uniform Electronic Transactions Act, Arkansas, USA.

4. The above legislation does not stipulate any specific technology for the generation of electronic signature.

5. Some of the states in the United States have closely followed the Uniform Electronic Transactions Act (UETA) in enacting their own legislation (e.g. Arkansas), while some others have adopted their own variations to the UETA (e.g. Iowa listed in paragraph 8(i) below). The E-Sign Act is a federal law applicable to the country for facilitating the use of electronic records and signatures in inter-state or foreign commerce. The basic scopes of the UETA and the E-Sign Act are similar.

Legislation specifying digital signature

6. Legislation examined under this category includes the following -

- (a) Information Technology Act 2000, India;
- (b) Digital Signature Act 1997, Malaysia;
- (c) Digital Signature Act (1999), South Korea; and
- (d) 廣東省電子交易條例 (草案), Guangdong Province, China.

7. The above legislation specifically provides for the use of digital signature in satisfying a signature requirement under law, or that digital signature is deemed to be a legally effective signature.

Legislation adopting a two-tier approach

8. Legislation under this category either does not stipulate a uniform treatment for all types of electronic signature, or they allow government entities in the respective jurisdictions to stipulate specific technologies for the generation of electronic signature. Legislation examined under this category includes:

- (a) Electronic Transactions Act 1999, Australia:
 - No specific technology is prescribed for electronic signature.
 - A Commonwealth entity is allowed to specify, if it wishes, its own technology requirements in relation to particular signature methods. (For transactions with Commonwealth entities where an online authentication system is required, digital signature has to be used.)
- (b) Personal Information Protection and Electronic Documents Act, Canada:
 - No specific technology is prescribed for electronic signature.

- Secure electronic signature is required for documents as evidence or proof, seals, or statements made under oath, etc. (We have been advised by the Treasury Board of Canada that the Canadian Government had not completed drafting the concerned regulations defining what constitutes a secure electronic signature; but the process or technology to be required will be public key technology.)
- (c) Directive 1999/93/EC for electronic signature, European Community:
- No specific technology is prescribed for electronic signature.
 - Advanced electronic signatures which are based on qualified certificates and which are created by a secure-signature-creation device can be regarded as legally equivalent to handwritten signatures only if the requirements laid down in national laws for the legal validity of handwritten signatures are fulfilled.
- (d) Electronic Commerce Act of 2000, the Philippines:
- No specific technology is prescribed for electronic signature.
 - The government, when performing government businesses and/or functions using electronic data messages or electronic documents, shall specify the format of an electronic data message or electronic document and the manner the electronic signature shall be affixed to the electronic data message or electronic document.
- (e) Electronic Communications and Transactions Act 2002, South Africa:
- No specific technology is prescribed for electronic signature. An electronic signature is not without legal force and effect merely on the grounds that it is in electronic form.

- Advanced electronic signature is necessary for a signature required by law. An Accreditation Authority may accredit authentication products and services in support of advanced electronic signatures. The criteria for accreditation include authenticity, integrity and non-repudiation.
- (f) Electronic Transactions Act 1998, Singapore:
- An electronic signature may be provided in any manner for satisfying a signature requirement under a rule of law.
 - A secure electronic signature is presumed in any proceedings to be affixed by the person with the intention of signing or approving the electronic record. A digital signature is treated as a secure electronic signature.
- (g) Electronic Transactions Act, Arizona, USA:
- An electronic signature satisfies any law that requires a signature. No specific technology is prescribed for electronic signature.
 - In the absence of a secure electronic signature, the Act does not create any presumption regarding the authenticity or integrity of an electronic signature.
 - There is a rebuttable presumption that a secure electronic signature is the electronic signature of the party to whom it relates. A secure electronic signature is required to fulfill the attributes of authenticity, integrity and non-repudiation.
- (h) Uniform Electronic Transactions Act of California and California Digital Signature Regulation, California, USA:
- The California Act models after the UETA referred to in paragraph 5 above, which only stipulates general requirements for electronic signature.

- The California Digital Signature Regulation stipulates that public key cryptography and signature dynamics¹ are acceptable technologies for use by public entities in California.

(i) Uniform Electronic Transactions Act, Iowa, USA:

- The Iowa Act basically models after the UETA referred to in paragraph 5 above, which only stipulates general requirements for electronic signature.
- The Iowa Act requires the use of digital signature for an electronic record that grants a legal or equitable interest in real property.

¹ “Signature dynamics” means measuring the way a person writes his or her signature by hand on a flat surface and binding the measurements to a message through the use of cryptographic techniques.