

**JOINT IMDA-AGC REVIEW OF THE ELECTRONIC TRANSACTIONS
ACT (CAP. 88) — REVIEW OF DRAFT UNCITRAL MODEL LAW ON
ELECTRONIC TRANSFERABLE RECORDS
(PUBLIC CONSULTATION PAPER)**

(Issued on 10 March 2017)

EXECUTIVE SUMMARY

The Info-communications Media Development Authority (“IMDA”) and the Attorney-General’s Chambers (“AGC”) are issuing this consultation paper to seek views from industry, businesses, the public and other Government agencies on the draft UNCITRAL Model Law on Electronic Transferable Records as part of a review of the Electronic Transactions Act (Cap. 88) (“ETA”).

The ETA was first enacted in July 1998 to create the legislative framework for electronic transactions in Singapore. Amongst other things, the enacted ETA provided for the legal recognition and usage of electronic signatures and electronic records, thereby giving predictability and certainty to electronic transactions, and facilitating electronic commerce.

The ETA currently excludes from its scope documents such as a bill of lading, warehouse receipt, dock warrant or negotiable instruments such as a bill of exchange, promissory note or cheque. Therefore, the ETA does not currently enable the use of electronic equivalents of such transferable documents or instruments (referred to as “electronic transferable records”).

The draft UNCITRAL Model Law contains a set of legal provisions, which when enacted by various jurisdictions, seek to enable the use of electronic transferable records not only within the enacting jurisdictions but also in a cross border context. If enacted by Singapore, the Model Law provisions will enable an electronic transferable record to enjoy the full legal recognition of the substantive law governing the paper-based equivalent. In other words, for example, an electronic bill of lading created under the enacted Model Law will enjoy the same legal recognition as a paper bill of lading, and an electronic promissory note or bill of exchange will enjoy the same legal recognition as a paper promissory note or bill of exchange. Industry and businesses will then be able to enjoy the advantages offered by an electronic transferable record – a faster speed of transmission, higher security than the paper equivalent and the opportunities related to the processing of data.

The first question posed in the consultation paper is whether Singapore should adopt the provisions of the draft Model Law, and if so, whether Singapore should be an early adopter. The consultation paper then seeks comment on 3 specific questions relating to specific draft articles of the draft Model Law.

The comments received from industry, businesses and the public on the draft Model Law provisions will be considered by the Singapore delegation to the 50th UNCITRAL session in July 2017, where the draft Model Law text will be considered for adoption. This consultation provides an opportunity for industry, businesses or the public to let the Government know whether the draft Model Law is anticipated to be useful, and also highlight if any part of the draft Model Law needs to be modified in order to better serve its purposes, before it is finalised.

1. INTRODUCTION

- 1.1 The Info-communications Media Development Authority (“IMDA”) and the Attorney-General’s Chambers (“AGC”) are conducting a review of the Electronic Transactions Act (Cap. 88) (“ETA”).
- 1.2 The ETA was first enacted in July 1998 to create the legislative framework for electronic transactions in Singapore. In enacting the ETA in 1998, Singapore was the first country in the world to adopt the Model Law on Electronic Commerce from the United Nations Commission on International Trade Law (“UNCITRAL”). Amongst other things, the ETA 1998 provided for the legal recognition and usage of electronic signatures and electronic records, thereby giving predictability and certainty to electronic transactions, and facilitating electronic commerce.
- 1.3 The ETA was repealed and re-enacted in 2010 to ensure its continued relevance in an increasingly digitised environment. The ETA 2010 implemented the 2005 UN Convention on the Use of Electronic Communications in International Contracts (Singapore being one of the first few countries to do so), and updated the regulatory framework for certification authorities to facilitate growth in secure electronic transactions.
- 1.4 With rapid technological changes, evolving consumer usage patterns and international developments, IMDA and AGC are conducting a two-phase public consultation to seek public feedback on the scope and proposed list of amendments to the ETA to ensure that the ETA remains relevant in providing a supportive legal framework that promotes a vibrant, trusted electronic transactions landscape in Singapore and strengthens Singapore’s role as a secure international hub in support of the digital economy.
- 1.5 It is anticipated that the ETA may be amended for alignment with international standards in the future, in particular, the draft UNCITRAL Model Law on Electronic Transferable Records (“Model Law”). Accordingly, in this first phase of the public consultation, IMDA and AGC are issuing this consultation paper to seek the views of relevant Government agencies, their stakeholders (industry, businesses and professionals) and the public on the draft Model Law, which has been prepared by the UNCITRAL Working Group IV (“WG IV”) and will be submitted for consideration and adoption by UNCITRAL at its 50th session in July 2017. The text of the draft Model Law with explanatory notes as set out in UN Document A/CN.9/920 (download at <http://www.uncitral.org/uncitral/commission/sessions/50th.html>) will be considered by UNCITRAL at its 50th session in July 2017. For convenient reference, the text of the draft Model Law (without the explanatory notes) is set out at Annex A to this consultation paper.

- 1.6 This consultation paper reproduces the text of the draft Model Law, provides commentary on selected issues and poses questions for which views are sought. The comments received will be considered by the Singapore delegation to the 50th UNCITRAL session in July 2017.
- 1.7 The second phase of the public consultation will focus on general issues pertaining to the ETA, the scope of the ETA and the certification authorities framework, and is scheduled to take place in the second half of 2017.

INVITATION TO COMMENT

- IMDA and AGC invite you to provide your views and comments (marked “**Review of the Electronic Transactions Act (Cap. 88) – Review of draft UNCITRAL Model Law on Electronic Transferable Records**”) on this consultation paper. Please submit your views and comments in soft copy via e-mail to **Consultation@imda.gov.sg**.
- All views and comments should be addressed to:
Ms. Aileen Chia
Director-General (Telecoms & Post),
Asst. CE (Connectivity & Competition Development)
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- The closing date for submission of responses is **1200 hours on 10 April 2017**.
- Instructions:
 - All views and comments should be submitted in soft copy (Microsoft Word or PDF format)
 - Respondents are required to include their personal/company particulars, correspondence address, contact number and email address in their submissions. Please also indicate the industry that your organisation is concerned with (e.g. banking, shipping, logistics, trading) in your response.

- 1.8 IMDA and AGC reserve the right to make public all or any part of any written submission and to disclose the identity of the source, or to quote or refer to any responses in subsequent publications (whether on IMDA and/or AGC’s websites or otherwise). Respondents may request confidential treatment for any part of the submission that the respondent believes to be proprietary, confidential or commercially sensitive. Any such information should be clearly marked and placed in a separate annex. If IMDA and AGC agree to grant confidential treatment, IMDA and AGC will take into consideration, but will not publicly disclose, such information. If IMDA and AGC reject the request for confidential treatment, IMDA and AGC will return all

documentation containing the information to the party that submitted the same and will exclude such information from the review. As far as possible, parties should limit their requests for confidential treatment of information submitted.

1.9 This consultation paper was issued on 10 March 2017.

2. BACKGROUND INFORMATION

2.1 *From Transferable Document or Instrument to Electronic Transferable Record (ETR)*

- 2.1.1. This consultation concerns the electronisation of documents such as the bill of lading, warehouse receipt, dock warrant or negotiable instruments such as the bill of exchange, promissory note or cheque. By virtue of section 4(1) read with item 2 of the First Schedule to the Electronic Transactions Act (ETA), Part II of the ETA does not apply to “[n]egotiable instruments, documents of title, bills of exchange, promissory notes, consignment notes, bills of lading, warehouse receipts or any transferable document or instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money”.
- 2.1.2. As a shorthand, this category of documents or instruments is referred to as “transferable documents or instruments”, which refers to two categories of documents — (i) transferable instrument for payment of money and (ii) transferable document of title. A transferable document or instrument evidences an obligation owed by the person issuing the document, or a third party, to another named in the document or to the bearer.¹ It is also possible to transfer the entitlement to the performance referred to by the transfer of the physical paper document. “Transferability” of the document refers to the possibility to transfer entitlement to performance by transferring possession of the document. “Negotiability” provides the holder of a negotiable instrument with a more valid title to performance than the one of the transferor, to the extent that the law limits the exceptions to the enforcement of the negotiable instrument vis-à-vis the good faith holder of the negotiable instrument².
- 2.1.3. The specific legal characteristics of each type of document or instrument would be determined by the applicable substantive law. For a transferable paper document or instrument, *possession* is generally required to enforce the rights embodied in the document or instrument. The physical transferable document or instrument is recognised as the singular embodiment of the rights that it carries. Consequently, the mechanism of transfer is physical delivery of the paper itself coupled with the transferor’s signed declaration of intent to transfer. In short, title to a transferable document or instrument and the rights it carries passes by endorsement (where necessary) and delivery of the *original* paper document or instrument.
- 2.1.4. An ETR is the electronic equivalent of a transferable document or instrument. The electronic transmission of an electronic record typically involves the replication of the

¹ Note by the Secretariat – Legal issues relating to the use of electronic transferable records (45th session, Vienna, 10-14 October 2011), A/CN.9/WG.IV/WP.115 at [4].

² Report of Working Group IV (Electronic Commerce) on the work of its forty-fifth session (Vienna, 20-14 October 2011), A/CN.9/737 at [51], [53].

electronic record. As an electronic copy of an electronic record is identical to the “original” (i.e. the “original” is not unique), if the electronic record is given legal recognition as an ETR without more, replication of the electronic record could give rise to multiple claims founded on identical electronic records. This illustrates the central issue in the use of ETRs — the need to guarantee the singularity or uniqueness of the electronic record constituting the ETR such that only one set of obligations is owed by the person who is obliged to perform. This would ensure that only one party would be entitled to require performance of the obligations embodied in the ETR. The key legal challenge is therefore to define the electronic functional equivalents of the requirement for possession of a unique or singular transferable document or instrument.

- 2.1.5. ETRs offer the advantages of faster speed of transmission and higher security than traditional paper transferable documents or instruments, and the opportunities related to the processing of data. Technologically, different solutions for the provision of ETRs, such as registry and token models, are emerging or have emerged. The distributed ledger (blockchain) technology has also drawn interest. Existing ETR systems are generally based on a registry model. As for legal recognition for ETRs, certain countries (e.g. China, USA, Japan and South Korea) have enacted domestic legislation to enable the creation and use of certain ETRs. Certain private sector providers of ETRs currently rely on multi-party agreements between the provider and users who have signed up to use their system, in order to confer legal effectiveness on their ETRs. In this web of contracts, the parties agree to recognise a certain electronic form as an electronic bill of lading or warehouse receipt. However, such a contractual framework approach has its limitations. The adoption of the draft Model Law by multiple jurisdictions would provide an opportunity for multi-jurisdictional legal recognition of ETRs, giving Model Law-compliant ETRs the same legal status as paper-based transferable documents or instruments, and ensuring their uniform legal enforceability across different jurisdictions. Before we turn to examine the text of the draft Model Law in greater detail, it is apposite first to understand the background and context behind the Model Law.

2.2 *Background to the Draft UNCITRAL Model Law on ETRs*

- 2.2.1. UNCITRAL is the core United Nations body established to remove barriers to trade through the harmonisation and modernisation of the law of international trade by preparing and promoting the use and adoption of legislative and non-legislative instruments in a number of key areas of commercial law. The substantive preparatory work on topics within UNCITRAL’s work programme is usually assigned to Working Groups, which generally hold one or two sessions per year. The Working Groups typically report on the progress of their work to the Commission.

- 2.2.2. The Electronic Transactions Act 1998 was based on the UNCITRAL Model Law on Electronic Commerce 1996. The Electronic Transactions Act 2010 repealed and re-enacted the provisions of the Electronic Transactions Act 1998 for alignment with the UN Convention on the Use of Electronic Communications in International Contracts (“Electronic Communications Convention”) which had been developed by UNCITRAL as the successor to the UNCITRAL Model Law on Electronic Commerce. The Electronic Communications Convention (enacted in Part II of the ETA 2010) contains functional equivalence rules that enable the use of electronic records and electronic communications by recognising electronic functional equivalents of paper-based requirements such as writing, signature, original etc. ETRs were excluded from the scope of the Electronic Communications Convention, as it was generally agreed that time was needed to develop legal and technical solutions to the challenges posed by the electronisation of transferable documents or instruments. In particular, UNCITRAL noted the difficulty in creating an electronic equivalent of paper-based negotiability and in ensuring the singularity of these documents.
- 2.2.3. In July 2011, UNCITRAL gave approval for WG IV to carry out work on ETRs. Over the course of 10 sessions³ between October 2011 to November 2016, WG IV deliberated on the issues and developed draft provisions on ETRs which are now in the form of a draft Model Law on ETRs. The draft Model Law contains harmonised legal rules that define the electronic functional equivalents of a paper transferable document or instrument and other paper-based requirements, and provide other legal rules necessary for the use of ETRs. The latest version of the articles in the draft Model Law are reproduced in Annex A.
- 2.2.4. There are essentially two possible legislative approaches to enabling the use of ETRs. The first approach is to create by legislation a “purely electronic” ETR which has no paper-based equivalent. This approach requires the enabling legislation to provide for all the substantive rules concerning the rights, obligations and characteristics of the “purely electronic” ETR. The second approach is to create functional equivalence rules to provide for electronic functional equivalents of paper-based requirements. This second approach does not affect the substantive law relating to the paper-based transferable document or instrument, but merely addresses barriers to the use of the electronic form that are posed by paper-based form requirements. WG IV adopted the second functional equivalence approach in preparing the draft Model Law.
- 2.2.5. Historically, UNCITRAL WG IV has adopted 2 principles when addressing the problems created by paper-based form requirements. The first principle is that of “functional equivalence”⁴. This approach is based on an analysis of the purposes and functions of the traditional paper-based requirement in order to determine how those

³ The 45th to 54th sessions of WG IV.

⁴ Electronic Communications Convention, Explanatory Note [46], [133].

purposes or functions could be fulfilled through electronic techniques⁵. It singles out the basic functions of the paper-based form requirements and sets out criteria that, once met by an electronic record or electronic communication, would enable such electronic record or electronic communication to enjoy the same level of legal recognition as corresponding paper documents performing the same function.⁶ With this approach, enacting jurisdictions are able to enable electronic transactions based on existing substantive laws without changing the paper-based requirements or disturbing the substantive legal concepts.

- 2.2.6. The second principle that guides WG IV in its work is “technology neutrality”. This is also reflected in prior UNCITRAL texts, including the Model Law on Electronic Commerce and the Electronic Communications Convention. This principle holds that the law should not discriminate between different technologies and thus, should neither require nor assume the adoption of a particular technology.⁷ Such an approach maximises the draft Model Law’s ability to accommodate all possible present and future technological implementations of ETRs.
- 2.2.7. As mentioned in paragraph 2.1.4 above, the key legal challenge for enabling the use of ETRs is to define the electronic functional equivalent of the requirement for possession of a unique or singular transferable document or instrument. These key characteristics of paper-based transferable documents or instruments raise several issues concerning the creation, use, transfer, and enforcement of ETRs, the key issues of which are:
- Uniqueness or guarantee of singularity — The rights represented by a paper-based transferable document or instrument are embodied in the unique paper document or instrument, which in turn guarantees the singularity of these rights (and obligation). The concern regarding a guarantee of uniqueness or singularity arises from the fact that an electronic record generally can be copied in a way that creates a duplicate record identical to and indistinguishable from the first. Absent special measures or widespread application of technologies today not in common use, there is little or no certainty that any electronic record is unique.⁸ Although a unique electronic record may not be achievable in a registry system, singularity could be achieved through the concept of an “authoritative record”, “definitive record” or other suitable concept.
 - Possession — Another significant challenge faced in adapting transferable paper legal regimes to accommodate ETRs lies in the identification and authentication of the person who is considered to have possession (or, in an electronic environment,

⁵ Electronic Communications Convention, Explanatory Note [51].

⁶ Electronic Communications Convention, Explanatory Note [51].

⁷ A/CN.9/WG.IV/WP.115 (n 1) at [35], Electronic Communications Convention, Explanatory Note [48].

⁸ A/CN.9/WG.IV/WP.115 (n 1) at [14].

control) of the electronic record that represents the obligation (i.e. the holder) and who thus constitutes the creditor or beneficiary of the value the ETR represents.⁹

- 2.2.8. The relevant discussions of the WG IV on the various issues from the various sessions have been concisely summarised in the Explanatory Notes to the Model Law in A/CN.9/920. A more detailed record of the discussions of the WG IV can be found in the working papers and official reports of the WG IV sessions which are available for public access at the UNCITRAL website (http://www.uncitral.org/uncitral/en/commission/working_groups/4Electronic_Commerce.html).
- 2.2.9. When enacted by the various jurisdictions, the draft Model Law will facilitate cross-border use of ETRs such as electronic bills of lading. Today, there are at least 3 commercial providers of electronic bill of lading services that use a contractual framework to enable the use of the electronic form of a paper-based bill of lading. When the Model Law is enacted as domestic law, an electronic record that meets the requirements of the Model Law will be an ETR and enjoy the full legal recognition of the substantive law governing the paper-based equivalent of that document or instrument. There would then be no need to rely on other legal concepts (such as found in existing multi-party agreements) to seek to replicate the functions of the paper-based transferable document or instrument. When enacted by an enacting jurisdiction, the domestic law adopting the Model Law would apply even to third parties, who are not privy to the web of contracts executed by the commercial providers and the users of the systems provided by those providers, and the third parties could in accordance with the applicable substantive law be required to recognise the rights and obligations arising from the relevant ETR.

⁹ A/CN.9/WG.IV/WP.115 (n 1) at [24].

3. ADOPTION OF THE MODEL LAW

- 3.1 The broad adoption by countries of harmonised laws recognising electronic functional equivalents of paper-based transferable documents or instruments would greatly minimise legal risks in carrying out trade and business using ETRs. In this connection, it should be noted that several countries, such as China, USA, Japan and South Korea, have already enacted domestic legislation to enable the creation and use of ETRs in specific domestic industry sectors. If a significant number of jurisdictions adopt the Model Law, amending their domestic laws to be consistent with the Model Law and one another, businesses, traders, carriers (shipping companies) and banks using these ETRs would be able to reduce legal risks relating to their enforceability in cross-border transactions.
- 3.2 The adoption of the Model Law by Singapore (and other countries which Singapore traders have trading relations with) would facilitate the use of ETRs. Since ETRs offer the advantages of faster speed of transmission and higher security than traditional paper transferable documents or instruments and the opportunities offered by the processing of data, it is anticipated that the use of ETRs would promote business and trade in, via and with Singapore.
- 3.3 Separately, adoption of the Model Law by Singapore could also facilitate innovation of business models by businesses, traders, banks, carriers (shipping companies) and technology service providers in Singapore, and contribute to the growth of domestic expertise in this nascent field and, more generally, the development of Singapore as a FinTech hub in the region.

Question 1: Should Singapore adopt the provisions of the Model Law into its domestic legislation?

Question 2: If the answer to Question 1 is “Yes”, should Singapore wait for other jurisdictions to adopt the provisions of the Model Law first? Are there any downsides to Singapore being an early adopter of the Model Law?

4. IMPACT ON THE ELECTRONIC TRANSACTIONS ACT

4.1 If Singapore adopts the draft Model Law, those provisions could be enacted as part of the ETA. We examine below the impact that the adoption of the Model Law provisions could have on the ETA. We discuss the impact of the Model Law provisions under four categories:

4.2 *Draft articles with no equivalent in the ETA*

4.2.1. The majority of the legal rules in the draft Model Law have no equivalent in the ETA, and hence, if found suitable, may be enacted as additional provisions. This includes the definition of “electronic transferable record” in draft article 2, draft article 10 (requirements for use of an electronic transferable record), draft article 11 (control), draft article 16 (endorsement) and draft articles 18 and 19 (replacement of a transferable document or instrument with an electronic transferable record, and vice versa).

4.2.2. Draft article 10 of the Model Law is a functional equivalence rule that stipulates the requirements that need to be met in order for an electronic record to be the electronic functional equivalent of a paper-based transferable document or instrument. Draft article 10, paragraphs 1(b)(iii) and 2 bear some similarity to section 10(1)(a) and (2) of the ETA which contains a functional equivalence rule for “originals”. However, it should be noted that the notion of “original” in section 10 of the ETA is a looser notion of “original”, in that there can be more than one electronic record satisfying the requirements of section 10 of the ETA. In contrast, draft article 10 of the draft Model Law requires that the electronic record is identified as “*the* electronic transferable record”, with the article “the” pointing to a requirement of singularity of the ETR.¹⁰ In short, draft article 10 of the Model Law contains a requirement of singularity, whereas section 10 of the ETA allows for the existence of more than one electronic “original” satisfying the requirements of section 10.

4.3 *Draft articles that are slightly different, but consistent with the ETA provisions*

4.3.1. There are also draft Model Law articles that are slightly different from but nevertheless consistent with the tenor of the analogous ETA provisions. These include draft article 7, paragraph 1 (*c.f.* section 6 ETA) and draft article 8 (*c.f.* section 7 ETA). The adoption of draft articles 7, paragraph 1 and 8 of the draft Model Law should not pose any difficulties. These draft Model Law articles could be enacted in a separate part of the ETA, or sections 6 and 7 of the ETA could be made to apply to ETRs.

¹⁰ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraphs 76 to 78 of Explanatory Notes to the Model Law.

4.4 ***Draft articles that are materially different from the analogous ETA provision***

- 4.4.1. Some draft articles are materially different from the analogous ETA provisions, and may require amendments to be made to the analogous ETA provisions in order to incorporate the Model Law.
- 4.4.2. Both the ETA and the draft Model Law contain definitions for the term ‘electronic record’. However, the two definitions differ in two aspects. Firstly, while both definitions define an electronic record as “[a record][information] generated, communicated, received or stored by electronic means”, the definition in section 2(1) of the ETA additionally states that an electronic record means a record generated, communicated, received or stored by electronic means “in an information system or for transmission from one information system to another”.

Secondly, and more significantly, the definition of “electronic record” in draft article 2 of the draft Model Law includes the phrase “including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not”. This definition of “electronic record” in the draft Model Law encompasses the notion of a composite record, where other information logically associated with or otherwise linked together with information that is generated, communicated, received or stored by electronic means is regarded as forming part of the same electronic record. In the context of ETRs, this means that when information relating to an endorsement is logically associated with the electronic record identified as *the* ETR, it is considered part of that electronic record. The definition of “electronic record” in section 2(1) of the ETA does not include such a notion of a composite electronic record. If the ETA is amended to adopt the draft Model Law provisions, either the definition of “electronic record” in section 2(1) of the ETA can be amended to include the notion of a composite record, or a separate definition for “electronic record” based on draft article 2 of the draft Model Law can be included in a separate part of the ETA containing the draft Model

4.5 ***Draft articles that have no equivalent in the ETA, but may have broader implications on the ETA as a whole***

- 4.5.1. Draft article 12, which sets out a general standard for assessing the reliability of methods referred to in other draft articles in the draft Model Law (e.g. draft articles 9, 10, 11, 13, 17, 18, 19), does not have a direct equivalent in the ETA. Both sections 8(b)(i) and 10(2)(b) of the ETA contain similar language describing a standard for assessing reliability. Whilst section 8(b)(i) of the ETA states that the signature method is required to be “as reliable as appropriate for the purpose for which the electronic record was generated or communicated, *in the light of all the circumstances, including any relevant agreement*”, section 10(2)(b) of the ETA states that “the

standard of reliability required shall be assessed in the light of the purpose for which the information was generated and *in light of all the relevant circumstances*".

- 4.5.2. Draft article 12(a) of the draft Model Law sets out a variety of circumstances which may be relevant for the purpose of assessing the reliability of the method referred to in another draft article. The circumstances include the operational rules relevant to the assessment of reliability, the assurance of data integrity, the ability to prevent unauthorised access to and use of the system, the security of hardware and software, the regularity and extent of audit by an independent body, the existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method, and any applicable industry standard.
- 4.5.3. A question that arises is whether a similar list of relevant circumstances ought to be inserted in sections 8(b)(i) and 10(2)(b) of the ETA, and what effect such a list of circumstances would have on the assessment of reliability in sections 8(b)(i) and 10(2)(b) of the ETA. It appears that the list of circumstances contained in draft article 12(a) have been included in contemplation of the type of system that would likely be implemented to create and support the use of ETRs. It appears that section 8(b)(i) of the ETA is appropriate and sufficient for the purposes of a signature method used for electronic transactions in general, and that it would neither be necessary nor appropriate to amend section 8(b)(i) of the ETA to incorporate the list of circumstances contained in draft article 12(a). Similarly, in the context of a functional equivalence rule for "original", it appears that it would not be necessary to amend section 10(2)(b) of the ETA to incorporate the list of circumstances contained in draft article 12(a).

5. SELECTED ISSUES IN THE DRAFT MODEL LAW AND COMMENTARY

5.1 *Article 4 – Party autonomy and privity of contract*

5.1.1. Draft article 4 of the draft Model Law provides as follows:

Article 4. Party autonomy and privity of contract

1. The parties may derogate from or vary by agreement the following provisions of this Law: [...].
2. Such an agreement does not affect the rights of any person that is not a party to that agreement.

5.1.2. Pursuant to draft article 4, the draft Model Law provides for party autonomy but within the limits of rules of mandatory application and without affecting rights and obligations of third parties.¹¹ The draft Model Law does not indicate which provisions may be derogated from or varied by agreement, and it is for enacting jurisdictions to identify them if any. In considering whether to permit parties to vary by agreement any provisions of the draft Model Law, it is useful to consider that any variations that may be permitted by enacting jurisdictions when enacting the draft Model Law will significantly undermine the uniformity of implementation which the draft Model Law was designed to achieve. Therefore, a careful analysis is necessary to ascertain whether to permit variation by parties and if so which provisions of the draft Model Law could be derogated from or varied by the parties. The draft Model Law leaves this assessment to each enacting jurisdiction, in order to accommodate differences in legal systems.

5.1.3. During the WG IV sessions, it was pointed out that whilst party autonomy was a notion appropriate for contractual relations, the substantive law applicable to transferable documents or instruments was often of mandatory application. It was added that functional equivalence rules aimed at enabling the use of electronic equivalents of transferable documents or instruments should likewise not be derogable. It was indicated that the creation of dual or multiple functional equivalence regimes, based on different contractual agreements of the parties, was to be avoided, as it was with respect to transferable documents or instruments.¹²

5.1.4. It does not appear necessary to permit any derogation or variation by parties of the provisions of the draft Model Law.

¹¹ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraphs 29 to 32 of Explanatory Notes to the Model Law.

¹² Report of Working Group IV (Electronic Commerce) on the work of its fifty-fourth session (Vienna, 31 October – 4 November 2016), A/CN.9/897, paragraphs 44 to 45.

Question 3: If the provisions of the draft Model Law are to be adopted by Singapore —

- (a) do you agree that it is not necessary to permit parties to derogate or vary by agreement any provisions of the draft Model Law?**
- (b) if your answer to (a) was no, which provisions should Singapore permit parties to derogate or vary from by agreement, and why?**

5.2 *Article 10 – Requirements for the use of an electronic transferable record, and Article 12 – General reliability standard*

5.2.1. Draft article 10 of the draft Model Law provides a functional equivalence¹³ rule for a paper-based transferable document or instrument.

Article 10. Requirements for the use of an electronic transferable record

1. Where the law requires a transferable document or instrument, that requirement is met by an electronic record if:

- (a) The electronic record contains the information that would be required to be contained in a transferable document or instrument; and
- (b) A reliable method is used:
 - (i) To identify that electronic record as the electronic transferable record;
 - (ii) To render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity; and
 - (iii) To retain the integrity of the electronic transferable record.

2. The criterion for assessing integrity shall be whether information contained in the electronic transferable record, including any authorised change that arises from its creation until it ceases to have any effect or validity, has remained complete and unaltered apart from any change which arises in the normal course of communication, storage and display.

5.2.2. Draft article 10 provides a functional equivalence rule for a transferable document or instrument by setting forth the requirements to be met by an electronic record. The requirement in draft article 10(1)(b)(i) that “[a] reliable method is used [t]o identify

¹³ “Functional equivalence” is an approach based on an analysis of the purposes and functions of traditional paper-based requirements in order to determine how those purposes or functions could be fulfilled through electronic techniques. The approach singles out the basic functions of paper-based form requirements and sets out criteria that, once met by an electronic record or electronic communication, would enable such electronic record or electronic communication to enjoy the same level of legal recognition as corresponding paper documents performing the same function.

that electronic record as **the** electronic transferable record”, is intended to encompass a requirement of singularity of the ETR.¹⁴ Due to interpretative challenges, draft article 10(1)(b)(i) does not contain a qualifier such as “authoritative”, “operative” or “definitive” to identify the electronic record as the ETR, and relies on the article “the” to include a requirement of singularity of the ETR.¹⁵

- 5.2.3. The reliability of the “reliable method” referred to in draft article 10(b) is intended to be assessed according to the criteria for the general reliability standard contained in draft article 12(a) (below), which provides that the relevant method is to be “[a]s reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include [circumstances described in sub-paragraphs (i) to (vii)]”.

Article 12. General reliability standard

For the purposes of articles 9, 10, 11, 13, 17, 18, and 19, the method referred to shall be:

(a) As reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include:

- (i) Any operational rules relevant to the assessment of reliability;
- (ii) The assurance of data integrity;
- (iii) The ability to prevent unauthorised access to and use of the system;
- (iv) The security of hardware and software;
- (v) The regularity and extent of audit by an independent body;
- (vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;
- (vii) Any applicable industry standard; or

(b) Proven in fact to have fulfilled the function by itself or together with further evidence.

- 5.2.4. Draft article 12(a)(vi) refers to the existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method. A declaration by such a supervisory or accreditation body would be a helpful factor in determining the reliability of the methods employed by a provider of an ETR management system, and may help to ensure a certain level of objectivity in the assessment of the reliability of the methods employed for identifying an ETR and for fulfilling the other requirements of draft article 10(1)(b), and for the fulfilment of the

¹⁴ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraphs 65 to 66 and 76 to 78 of Explanatory Notes to the Model Law.

¹⁵ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraph 78 of Explanatory Notes to the Model Law.

other functions referred to in draft articles 9, 11, 13, 17, 18 and 19.¹⁶ For a provider of an ETR management system, the existence of a declaration by a supervisory body or an accreditation body regarding the reliability of the methods employed in the ETR management system would provide a level of assurance that the ETRs created and supported by the system will be duly recognised by a court as satisfying the requirements of the draft Model Law, and therefore given legal recognition as the electronic equivalents of the corresponding paper-based transferable document or instrument.

- 5.2.5. Alternatively, a provider of an ETR management system may choose to rely on other factors set out in draft article 12(a) to support a determination of the reliability of the methods employed for fulfilling the requirements of draft article 10(1)(b) and draft articles 9, 11, 13, 17, 18 and 19, such as an “applicable industry standard” under draft article 12(a)(vii) and “[t]he regularity and extent of audit by an independent body” under draft article 12(a)(v).

Question 4: If the provisions of the draft Model Law are adopted by Singapore, should a system of accreditation by an accreditation body, of the methods employed by an ETR management system, be introduced for providers of an ETR system?

5.3 *Article 13 – Indication of time and place in electronic transferable records*

- 5.3.1. Draft article 13 of the draft Model Law provides as follows:

Article 13. Indication of time and place in electronic transferable records

Where the law requires or permits the indication of time or place with respect to a transferable document or instrument, a reliable method shall be used to indicate that time or place with respect to an electronic transferable record.

- 5.3.2. There may be legal consequences attached to the indication of time and place with respect to a transferable document or instrument. For instance, recording the time of an endorsement is necessary to establish the sequence of the obligors in the action of recourse. Draft article 13 allows for that indication in ETRs. In the case of endorsements, this is particularly important given that the dematerialised nature of ETRs does not make their temporal sequence apparent as in transferable documents or instruments.¹⁷

¹⁶ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraphs 103 to 106, and 114 of Explanatory Notes to the Model Law.

¹⁷ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraph 121 of Explanatory Notes to the Model Law.

- 5.3.3. Provisions relating to the indication of time and place, if any, are to be found in substantive law, which may indicate to what extent and which parties may agree on it. If the indication of time and place is mandatory under substantive law, that requirement must be complied with in accordance with draft article 10, paragraph 1(a) of the Model Law (see paragraph 5.2.1 above), which requires that the ETR must contain the information “required to be contained in a transferable document or instrument”.¹⁸
- 5.3.4. The words “or permits” clarify that draft article 13 shall apply also to cases when the law permits, but does not require, the indication of time or place with respect to a transferable document or instrument. In line with the general rule that the draft Model Law does not impose any additional information requirement, draft article 13 does not require the indication of time and place when that information is not mandatory under applicable law.¹⁹
- 5.3.5. Methods available to indicate time and place in ETRs may vary with the system used. Therefore, draft article 13 is based on a technology-neutral approach compatible with systems based on registry, token, distributed ledger or other technology. The reference to the use of a reliable method in indicating time points at the possibility of using trust services such as trusted time stamping.
- 5.3.6. It has been suggested that the provisions on time and place of dispatch and receipt of data messages (article 15 of the UNCITRAL Model Law on Electronic Commerce) and of electronic communications (article 10 of the Electronic Communications Convention) are relevant for contract formation and management but may not be appropriate with respect to the use of ETRs.²⁰ A contrary view was expressed at the 53rd WG IV session, where it was proposed that an alternative to draft article 14²¹, based on article 10 of the Electronic Communications Convention, should be included in the draft Model Law to provide for rules to determine the place of dispatch and receipt of an ETR. It was pointed out that such rules would be essential to enable cross-border use of ETRs.²² Under the substantive law, a dispatch and receipt of an ETR could amount to an issuance or transfer of the ETR (depending on whether the person was the issuer or transferor). Therefore, it would be relevant and appropriate for such an alternative draft article 14 to refer to notions of dispatch and receipt without referring to the substantive law notions such as “issuance” or “transfer”. Such an alternative draft article 14 could supplement draft article 13, especially since draft

¹⁸ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraph 122 of Explanatory Notes to the Model Law.

¹⁹ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraph 123 of Explanatory Notes to the Model Law.

²⁰ Draft Model Law on Electronic Transferable Records with explanatory notes, A/CN.9/920, paragraph 126 of Explanatory Notes to the Model Law.

²¹ The current draft article 14 was then numbered as draft article 12 at the 53rd WG IV session.

²² Report of Working Group IV (Electronic Commerce) on the work of its fifty-third session (New York, 9–13 May 2016), A/CN.9/869, paragraphs 86 to 90.

article 13 may not apply in a case where the place of transfer of an ETR is not *indicated* in the ETR by the transferor.

Question 5: If the provisions of the Model Law are to be adopted by Singapore, is there a necessity for draft article 13 to be expanded by enacting provisions on the time and place of the dispatch and receipt of electronic transferable records?

5.5 *Other articles of the draft Model Law*

- 5.5.1. The foregoing parts of the consultation paper provide commentary only on specific draft articles and raise only selected issues for comment.
- 5.5.2. A concise summary of the discussions of WG IV on the other draft articles of the draft Model Law can be found in the Explanatory Notes to the Model Law in UN Document A/CN.9/920.

Question 6: Do you have any comments on any other draft article of the draft Model Law? If so, please identify the specific draft article in your comment and if relevant, the specific paragraphs of the Explanatory Notes in A/CN.9/920 that your comment relates to.

ANNEX A: DRAFT MODEL LAW ARTICLES

This annex sets out the text of the provisions of the draft Model Law on Electronic Transferable Records, as adopted by WG IV at the 54th WG IV session in November 2016, and set out in UN Document A/CN.9/920.

CHAPTER I. GENERAL PROVISIONS

Article 1. Scope of application

1. This Law applies to electronic transferable records.
2. Other than as provided for in this Law, nothing in this Law affects the application to an electronic transferable record of any rule of law governing a transferable document or instrument including any rule of law applicable to consumer protection.
3. This Law does not apply to securities, such as shares and bonds, and other investment instruments, and to [...].²³

Article 2. Definitions

For the purposes of this Law:

“*Electronic record*” means information generated, communicated, received or stored by electronic means, including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not;

“*Electronic transferable record*” is an electronic record that complies with the requirements of article 10;

“*Transferable document or instrument*” means a document or instrument issued on paper that entitles the holder to claim the performance of the obligation indicated in the document or instrument and to transfer the right to performance of the obligation indicated in the document or instrument through the transfer of that document or instrument.

Article 3. Interpretation

²³ The enacting jurisdiction may consider including a reference to: (a) documents and instruments that may be considered transferable, but that should not fall under the scope of the Model Law; (b) documents and instruments falling under the scope of the Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes (Geneva, 1930) and the Convention Providing a Uniform Law for Cheques (Geneva, 1931); and (c) electronic transferable records existing only in electronic form.

1. This Law is derived from a model law of international origin. In the interpretation of this Law, regard is to be had to the international origin and to the need to promote uniformity in its application.
2. Questions concerning matters governed by this Law which are not expressly settled in it are to be settled in conformity with the general principles on which this Law is based.

Article 4. Party autonomy and privity of contract

1. The parties may derogate from or vary by agreement the following provisions of this Law: [...].²⁴
2. Such an agreement does not affect the rights of any person that is not a party to that agreement.

Article 5. Information requirements

Nothing in this Law affects the application of any rule of law that may require a person to disclose its identity, place of business or other information, or relieves a person from the legal consequences of making inaccurate, incomplete or false statements in that regard.

Article 6. Additional information in electronic transferable records

Nothing in this Law precludes the inclusion of information in an electronic transferable record in addition to that contained in a transferable document or instrument.

Article 7. Legal recognition of an electronic transferable record

1. An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it is in electronic form.
2. Nothing in this Law requires a person to use an electronic transferable record without that person's consent.
3. The consent of a person to use an electronic transferable record may be inferred from the person's conduct.

²⁴ The enacting jurisdiction may consider which provisions of the Model Law, if any, the parties may derogate from or vary by agreement.

CHAPTER II. PROVISIONS ON FUNCTIONAL EQUIVALENCE

Article 8. Writing

Where the law requires that information should be in writing, that requirement is met with respect to an electronic transferable record if the information contained therein is accessible so as to be usable for subsequent reference.

Article 9. Signature

Where the law requires or permits a signature of a person, that requirement is met by an electronic transferable record if a reliable method is used to identify that person and to indicate that person's intention in respect of the information contained in the electronic transferable record.

Article 10. Requirements for the use of an electronic transferable record

1. Where the law requires a transferable document or instrument, that requirement is met by an electronic record if:
 - (a) The electronic record contains the information that would be required to be contained in a transferable document or instrument; and
 - (b) A reliable method is used:
 - (i) To identify that electronic record as the electronic transferable record;
 - (ii) To render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity; and
 - (iii) To retain the integrity of the electronic transferable record.
2. The criterion for assessing integrity shall be whether information contained in the electronic transferable record, including any authorised change that arises from its creation until it ceases to have any effect or validity, has remained complete and unaltered apart from any change which arises in the normal course of communication, storage and display.

Article 11. Control

1. Where the law requires the possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used:

(a) To establish exclusive control of that electronic transferable record by a person; and

(b) To identify that person as the person in control.

2. Where the law requires or permits transfer of possession of a transferable document or instrument, that requirement is met with respect to an electronic transferable record through the transfer of control over the electronic transferable record.

CHAPTER III. USE OF ELECTRONIC TRANSFERABLE RECORDS

Article 12. General reliability standard

For the purposes of articles 9, 10, 11, 13, 17, 18, and 19, the method referred to shall be:

(a) As reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include:

(i) Any operational rules relevant to the assessment of reliability;

(ii) The assurance of data integrity;

(iii) The ability to prevent unauthorised access to and use of the system;

(iv) The security of hardware and software;

(v) The regularity and extent of audit by an independent body;

(vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;

(vii) Any applicable industry standard; or

(b) Proven in fact to have fulfilled the function by itself or together with further evidence.

Article 13. Indication of time and place in electronic transferable records

Where the law requires or permits the indication of time or place with respect to a transferable document or instrument, a reliable method

shall be used to indicate that time or place with respect to an electronic transferable record.

Article 14. Determination of place of business

1. A location is not a place of business merely because that is:
 - (a) Where equipment and technology supporting an information system used by a party in connection with electronic transferable records are located; or
 - (b) Where the information system may be accessed by other parties.
2. The sole fact that a party makes use of an electronic address or other element of an information system connected to a specific country does not create a presumption that its place of business is located in that country.

Article 15. Issuance of multiple originals

Where the law permits the issuance of more than one original of a transferable document or instrument, this may be achieved with respect to electronic transferable records by the issuance of multiple electronic transferable records.

Article 16. Endorsement

Where the law requires or permits the endorsement in any form of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if the information required for the endorsement is included in the electronic transferable record and that information is compliant with the requirements set forth in articles 8 and 9.

Article 17. Amendment

Where the law requires or permits the amendment of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used for amendment of information in the electronic transferable record so that the amended information is identified as such.

Article 18. Replacement of a transferable document or instrument with an electronic transferable record

1. An electronic transferable record may replace a transferable document or instrument if a reliable method for the change of medium is used.
2. For the change of medium to take effect, a statement indicating a change of medium shall be inserted in the electronic transferable record.
3. Upon issuance of the electronic transferable record in accordance with paragraphs 1 and 2, the transferable document or instrument shall be made inoperative and ceases to have any effect or validity.
4. A change of medium in accordance with paragraphs 1 and 2 shall not affect the rights and obligations of the parties.

Article 19. Replacement of an electronic transferable record with a transferable document or instrument

1. A transferable document or instrument may replace an electronic transferable record if a reliable method for the change of medium is used.
2. For the change of medium to take effect, a statement indicating a change of medium shall be inserted in the transferable document or instrument.
3. Upon issuance of the transferable document or instrument in accordance with paragraphs 1 and 2, the electronic transferable record shall be made inoperative and ceases to have any effect or validity.
4. A change of medium in accordance with paragraphs 1 and 2 shall not affect the rights and obligations of the parties.

CHAPTER IV. CROSS-BORDER RECOGNITION OF ELECTRONIC TRANSFERABLE RECORDS

Article 20. Non-discrimination of foreign electronic transferable records

1. An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it was issued or used abroad.

2. Nothing in this Law affects the application to electronic transferable records of rules of private international law governing a transferable document or instrument.