

**General Assembly**

Distr.: General  
5 May 2015  
English  
Original: English/French

---

**United Nations Commission  
on International Trade Law****Forty-eighth session**

Vienna, 29 June-16 July 2015

**Possible future work in the area of electronic commerce —  
legal issues related to identity management and trust  
services****Proposal by Austria, Belgium, France, Italy and Poland****Note by the Secretariat**

The Secretariat received the proposal by Austria, Belgium, France, Italy and Poland (in English and French). The text received by the Secretariat is reproduced as an annex to this note in the form in which it was received.

The Secretariat received a proposal with the identical content (in English) from the Business Law Section of the American Bar Association (ABA) with the indication that it was “prepared by the Identity Management Legal Task Force of the ABA Section of Business Law and then adopted by the Section on April 18, 2015. The views expressed in this paper have not been approved by the House of Delegates or the Board of Governors of the ABA and, accordingly, should not be construed as necessarily representing the policy of the ABA.”



## Annex

### I. Introduction

1. Pursuant to the mandate given during the 44th session of the Commission in 2011, Working Group IV on electronic commerce (hereinafter Working Group IV) is carrying out its work on electronic transferable records.<sup>1</sup> During the 48th session of the Commission, the Working Group reported on the work carried out during its 50th and 51st sessions. Work on the model legal provisions for electronic transferable records is progressing significantly.

2. At its 44th session in 2011, the Commission also noted that support was expressed for dealing with the legal issues relating to identity management as a possible topic in the mandate of Working Group IV.<sup>2</sup> In this regard, it was indicated that it would be beneficial to monitor the situation with a view to better define the terms of a possible future mandate of the Working Group.<sup>3</sup> Moreover, the Commission also agreed that the extension of the mandate of Working Group IV to other topics, including that of identity management, would be considered at a future session<sup>4</sup> (as discrete subjects, rather than only with regard to the impact they can have on electronic transferable records).

3. Since the Commission's 44th session, the topic of identity management has taken on great significance for electronic commerce, and is now recognized as a foundational issue for most significant e-commerce transactions. Likewise, interest in using trust services to accomplish e-commerce transactions has also greatly expanded.

4. In this context, the aim of this proposal is to provide the Commission with the necessary information regarding both identity management and trust services with a view to considering a possible mandate to Working Group IV to address these topics.

### II. Impact on UNCITRAL work products and texts

5. The work proposed in the areas of identity management and trust services is in line with, and a logical extension of (1) the work carried out by Working Group IV in the past (including the Model Law on Electronic Commerce, the Model Law on Electronic Signatures and the Convention on the Use of Electronic Communications in International Contracts), (2) the work currently in process (work on electronic transferable records), and (3) possible future work on other topics that have been discussed, such a single windows, cloud computing, and mobile payments.

6. At its essence, identity management is a set of processes to manage the identification, authentication, and authorization of individuals, legal entities, devices, or other subjects in an online context. It is designed to provide the answer

---

<sup>1</sup> Report of the United Nations Commission on International Trade Law on the work of its 44th session (27 June to 8 July 2011), United Nations document A/66/17, para. 238.

<sup>2</sup> Ibidem, par. 236.

<sup>3</sup> Ibidem, par. 236.

<sup>4</sup> Ibidem, par. 239.

to two simple questions that each party to an online transaction asks about the other party: “Who are you?” and “How can you prove it?” With a trustworthy verification of identity, a party to an online transaction can decide, for example, whether to enter into a contract with the other party, whether to allow the other party to access a sensitive database, or whether to extend some other privilege or access right to the other party. A basic overview of identity management — summarizing what it is, how it works, and the legal issues it raises — can be found in A/CN.9/WG.IV/WP.120, Overview of Identity Management.

7. In fact, identity management is a fundamental requirement that underlies most work products developed (or currently being developed) by Working Group IV. For example:

(a) Establishing the identity of the signer is one of the requirements for creating a valid electronic signature. Both Article 7 of the UNCITRAL Model Law on Electronic Commerce (1996) and Article 9 of the United Nations Convention on the Use of Electronic Communications in International Contracts (2005) require, as a condition of creating a valid electronic signature, that a “method is used to identify” the signer that is as reliable as was appropriate for the purpose for which the data message is generated or communicated. Article 2 of the UNCITRAL Model Law on Electronic Signatures (2001) also requires data “which may be used to identify the signatory” as a component of an electronic signature;

(b) Establishing identity is also a critical requirement for electronic transferable records, Single Window transactions, and mobile payments. In particular, several articles in the current draft provisions on electronic transferable records require establishing the identity of the signer of the transferable record and/or the holder entitled to enforce it.<sup>5</sup> Likewise, any future work on Single Window processes will require establishing the identity of the signer of customs documents, as well as the identity of the person or entity filing them and the person or entity entitled to enforce them.<sup>6</sup> Also, any future work on mobile payments will require (for purposes of authorization) the identity of the person purporting to transfer funds.<sup>7</sup>

8. In addition, many of the requirements for e-commerce transactions contemplated by the foregoing UNCITRAL texts may, at a party’s option, be facilitated by the use of one or more trust services provided by third parties. A “trust service” can include a service for creating an electronic signature, applying an electronic seal to ensure the origin and integrity of a document, electronic time stamping a document to establish that certain data existed as of a certain date and time, and providing the secure transmission of a document between parties.

---

<sup>5</sup> See A/CN.9/WG.IV/WP.132 and WP.132/Add.1, Draft provisions on electronic transferable records, at articles 9, 10, 17, 27, and 28.

<sup>6</sup> See A/CN.9/728/Add.1, paras. 42 and 45.

<sup>7</sup> See A/CN.9/728, para. 52.

### **III. The importance of identity management and trust services for e-commerce**

9. Reliable identity management has become a critical requirement for electronic business activities, especially as the significance and sensitivity of those transactions increases. In fact, an OECD study and guidance document on identity management noted that “digital identity management is fundamental to the further development of the Internet economy.”<sup>8</sup>

10. As a consequence, many entities, in both the public and private sectors, are now developing (or would like to develop) business models that provide, or rely on, identity management. The same is also true of trust services, some of which require identity management.

11. In many electronic transactions conducted via a website, for example, there is a need to verify the identity of a website owner to ensure that the website belongs to and is managed by the entity that purports to operate it. Likewise, in many cases it is important that the parties sufficiently identify themselves to each other when starting negotiations. Using an electronic signature to evidence a final agreement may also require separately identifying the signer, as well as time stamping the document to certify the date and time it was signed. Finally, in some cases it is important that documents are transmitted to the counterparty via a secure channel that ensures the date of dispatch and receipt of the document. Authentication of identity, and trust services, contribute significantly to a paperless trading environment, thus saving significant resources for businesses and public administrations.

12. Notwithstanding the benefits of identity management and trust services, market players are sometimes reluctant and cautious when it comes to the deployment or use of such services. While some of the reasons for this reluctance may relate to the costs as well as business and technical challenges, the legal challenges and uncertainties can also make it very difficult to build, implement, and use such systems. Because identity management and trust services are relatively new concepts, legal challenges include the fact that: (i) many businesses and States simply may not understand the legal issues involved, and (ii) in many cases, existing law is not set up to accommodate identity transactions, and may in fact create barriers to the full-scale deployment of identity management capabilities and trust services. Moreover, newly adopted laws in some jurisdictions conflict with similar laws in other jurisdictions, potentially leading to cross-border interoperability issues.

### **IV. Why the proposed work would be useful**

13. Given the growing importance of verifying the identity of the other party in electronic commercial transactions of all types, and the increasing use of trust services by parties in certain types of electronic transactions, it seems appropriate to

---

<sup>8</sup> OECD (2011) “Digital Identity Management for Natural Persons: Enabling Innovation and Trust in the Internet Economy — Guidance for Government Policy Makers”, OECD Digital Economy Papers, No. 196, OECD Publishing, at p. 3.

start working on related legal issues within UNCITRAL. Moreover, the analysis of these legal issues would help bring about the development of applicable uniform international legal frameworks, and would be useful for stakeholders when assessing the most suitable model for their activities.

14. Several national and regional initiatives in the field of identity management and/or trust services are actively underway. While they sometimes adopt conflicting approaches, they help to identify the relevant issues, and can be used to inform the discussion regarding the design of appropriate legal frameworks at an international level that could be transposed in existing legal systems. Examples of these initiatives include:

(a) National and regional legislation governing identity management and/or trust services that has recently been adopted or proposed, including the adoption on 23 July 2014 of the European Regulation on electronic identification and trust services,<sup>9</sup> the Belgian law on the eID card and the draft Belgian law on trust services,<sup>10</sup> the French legislation on electronic signatures<sup>11</sup> as well as on electronic registered mail,<sup>12</sup> the Italian regulations on the *posta elettronica Certificata*,<sup>13</sup> and the Virginia [United States of America] Electronic Identity Management Act, effective July 1, 2015;<sup>14</sup>

(b) Public sector national and international initiatives, including the United States National Strategy for Trusted Identities in Cyberspace (NSTIC)<sup>15</sup> and its Identity Ecosystem Steering Group,<sup>16</sup> two OECD studies on Digital Identity Management,<sup>17</sup> the European Union STORK projects,<sup>18</sup> and the work of several groups including the ITU, the Digital ID and Authentication Council of Canada (DIACC),<sup>19</sup> and the United Kingdom of Great Britain and Northern Ireland Government Digital Service;<sup>20</sup> and

(c) Private sector national and international initiatives, including the ABA Business Law Section's Identity Management Legal Task Force,<sup>21</sup> the Kantara Initiative,<sup>22</sup> the Fast Identity Online (FIDO) Alliance,<sup>23</sup> the Secure Identity

<sup>9</sup> <http://ec.europa.eu/digital-agenda/en/trust-services-and-eid>.

<sup>10</sup> [www.lachambre.be/FLWB/PDF/53/2745/53K2745006.pdf](http://www.lachambre.be/FLWB/PDF/53/2745/53K2745006.pdf).

<sup>11</sup> [www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000399095&dateTexte=&categorieLien=id](http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000399095&dateTexte=&categorieLien=id).

<sup>12</sup> <http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000023513151>.

<sup>13</sup> <http://qualitapa.gov.it/relazioni-con-i-cittadini/open-government/strumenti-della-pa-digitale/la-posta-elettronica-certificata/>.

<sup>14</sup> <https://leg1.state.va.us/cgi-bin/legp504.exe?151+ful+CHAP0483>.

<sup>15</sup> [www.nist.gov/nstic/](http://www.nist.gov/nstic/).

<sup>16</sup> [www.idecosystem.org/](http://www.idecosystem.org/).

<sup>17</sup> OECD (2011) "Digital Identity Management for Natural Persons: Enabling Innovation and Trust in the Internet Economy — Guidance for Government Policy Makers," OECD Digital Economy Papers, No. 196, OECD Publishing, at p. 3; and OECD (2011), "National Strategies and Policies for Digital Identity Management in OECD Countries", OECD Digital Economy Papers, No. 177, OECD Publishing.

<sup>18</sup> <https://www.eid-stork.eu>.

<sup>19</sup> [www.diacc.ca](http://www.diacc.ca).

<sup>20</sup> <http://digital.cabinetoffice.gov.uk/category/id-assurance/>.

<sup>21</sup> <http://apps.americanbar.org/dch/committee.cfm?com=CL320041>.

<sup>22</sup> <http://kantarainitiative.org/>.

<sup>23</sup> <https://fidoalliance.org>.

Alliance,<sup>24</sup> the Open Identity Exchange,<sup>25</sup> the Transglobal Secure Collaboration Program (TSCP),<sup>26</sup> and the Open Group: Identity Management Forum.<sup>27</sup>

15. The proposed work can help to coordinate the legal aspects of the work of many of the various national and international groups currently addressing these issues separately, and help to educate States and businesses unfamiliar with the legal issues involved, all with a goal of continuing to build trust in electronic commerce and electronic transactions.

16. In addition, the proposed work could supplement and provide pragmatic solutions to the documents already prepared by UNCITRAL. Specifically, it could help develop legal frameworks that would convert undefined or “abstract” requirements laid down by the above UNCITRAL texts into “practical and operational” actions. This would provide companies with well-defined legal frameworks to better manage their risks related to international e-commerce and to ensure the legal certainty of their electronic transactions in a clear and efficient way.

## V. Goal and issues

17. The goal of the proposed work would be first to provide a basic legal framework covering identity management transactions, including appropriate provisions designed to facilitate international cross-border interoperability. Thereafter, the goal would similarly be to provide a basic legal framework for each applicable trust service.

18. In all cases, developing a legal framework should be premised on two basic principles: first, the use of such systems or services should be voluntary and fully respect the autonomy of the parties to a transaction; second is the principle of neutrality — both technological and business model neutrality. Legislation should never limit innovation and business opportunities by introducing rules that purposely favour one specific technical or business solution over another.

19. The issues that might be addressed in developing such legal frameworks, whether for identity management or trust services, could include the following:

(a) Legal barriers: like prior Working Group IV projects dealing with e-commerce, identifying and removing inappropriate legal barriers is likely to be a key element of the proposed work. Such barriers can relate to many issues, including identification, signature, integrity, date, evidence of sending and receiving a document, trustworthiness, etc. In addition, a lack of international harmonization of these issues may itself create a significant barrier for the use of electronic identification and trust services;

(b) Trustworthiness: the trustworthiness of any identity management or trust services transaction is often a critical concern to the parties. Defining or measuring trustworthiness may be important in some cases and impossible in others. While many of the factors that affect trustworthiness are not legal in nature, there may be

---

<sup>24</sup> <https://www.secureidentityalliance.org/>.

<sup>25</sup> <http://openidentityexchange.org/>.

<sup>26</sup> [www.tscp.org](http://www.tscp.org).

<sup>27</sup> [www.opengroup.org/](http://www.opengroup.org/).

legal approaches that can be used to address concerns regarding trustworthiness. Such methods may include, for example, disclosure requirements that allow parties to accurately assess the situation, giving varying legal effects to certain types of conduct that might enhance or detract from trust, harmonizing certain requirements across jurisdictions, or imposing requirements governing conduct in order to ensure trust;

(c) Data security: the level of security provided by a party to an identity management transaction or by a trust service provider may affect the result, from a legal perspective. Currently, there are no international standards or regulations that set any legally mandated security obligations for identity management systems or for trust service providers. The absence of objective elements to assess the quality and trustworthiness of the service received may present a significant issue for the participants. Alternatively, a flexible model allowing varying requirements with respect to identity management or trust service providers could also be an option. Whether and how to establish appropriate requirements for security by identity management and trust service providers may be a key issue;

(d) Liability allocation: what is the liability regime for identity management systems and for trust service providers? When cross-border liability issues arise, the parties could be confronted with uncertain legal rules or case law. It may therefore be appropriate to consider whether developing clear rules on liability is possible or desirable, and if so how these rules should be structured;

(e) Legal effect: the legal effect of electronic identification and authentication, and the legal effect of many trust services, are often undefined. Except for electronic signatures, neither electronic identification nor any of the other trust services is defined or is currently given a cross-border legal effect by international law. This raises numerous questions, such as: Are they recognized by the other jurisdiction? Do they benefit from the principle of non-discrimination with regard to their paper equivalent? Do they benefit from other legal effects? Will a contract be considered as valid in the other jurisdiction? What are the remedies if a party fails to meet its obligations? The proposed work might also consider providing for specific legal effects for electronic identification and trust services to enable parties to manage their risks effectively.

20. The above highlights the importance of identity management and trust services for the development of international trade law as well as the need to provide market players with tools to ensure legal certainty of their electronic transactions.

## **VI. Work to be carried out by UNCITRAL**

21. In the light of the above, we propose that the Commission undertake work in the field of identity management and trust services, and give priority to these topics. Taking account of the limited time and resources available, we propose to start by undertaking work in the field of identity management while progressively introducing the work related to trust services.

22. Taking account of the limited budgetary resources of the Secretariat, we propose to set up an informal group of experts to support the Secretariat in preparing legislative proposals in order to start discussions in the Working Group.

This panel would be open to all delegations. If there is a need to collect additional information, the expert group could support the Secretariat in the possible organization of a symposium on the topic.

---