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Review of draft UNCITRAL secretariat notes on the main issues of cloud computing contracts

Considerations relating to the preparation of an online tool containing a legal text

Note by the Secretariat

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I. Introduction

1. At its fifty-first session, the Commission requested the Secretariat to prepare, within existing resources, a pilot online tool containing the draft notes on the main issues of cloud computing contracts, for consideration at its fifty-second session, in 2019. The Commission also requested the Secretariat to prepare a note illustrating the considerations relating to the preparation of the pilot online tool, including budgetary and other implications, and departure from the existing UNCITRAL publication policy.¹ This note is submitted pursuant to that request.

2. Chapter II sets out considerations involved in preparing an online tool containing a legal text, including: general considerations, such as United Nations strategies and policies for the use of new technologies for the implementation of United Nations mandates; and requirements that would be applicable to such an online tool. Chapter III explains the current UNCITRAL publication practices and implications, including budgetary implications, of deviating therefrom.

II. Considerations involved in preparing an online tool containing a legal text

A. General considerations

3. UNCITRAL regularly assesses the impact of new technologies on its legislative work when it formulates its work program and texts. On several occasions, UNCITRAL also considered the impact of new technologies on the implementation of its promotional and dissemination mandate and in that respect emphasized desirability of increasing its online presence. It acknowledged that in the communication and interaction with the external world, constant adaptation is required if UNCITRAL is to remain relevant.²

4. New technologies facilitate the dissemination of information about the work of UNCITRAL and its texts to the maximum target audience in a most effective and cost-efficient way. Millennials and generation “Z”, for whom mobile device responsive websites, mobile applications (commonly referred to as “apps”) and other online tools are the main sources of information and communication (including for legal research and writing), will soon form the majority of the UNCITRAL principal audience (official delegates of States and international organizations, parliamentarians, other government officials, judges and academics). In addition, the business sector is the main beneficiary of UNCITRAL’s work. That sector drives the development of new technologies and is the main user of those technologies. The online world is the world in which it operates.

5. Furthermore, online tools would make the Commission more responsive to the needs of users of UNCITRAL texts by allowing faster updates of those texts when necessary and identifying areas and topics for possible future work, in response to the feedback of end-users and practitioners. Through online tools, the pool of feedback providers could in turn be made more inclusive and diverse than is currently the case. Online tools could also facilitate legal research and studies that underlie UNCITRAL work (e.g., through data mining, data innovation and other artificial intelligence technologies and software) and produce benefits to the implementation of other aspects of the UNCITRAL mandate.

6. The UNCITRAL secretariat has taken several steps towards making the UNCITRAL presence in the online world more visible, in particular by migrating the UNCITRAL website to a mobile device responsive platform and by expanding the use of social media. Efforts are made to expand and modernize the CLOUT and

¹ *Official Records of the General Assembly, Seventy-third Session, Supplement No. 17 (A/73/17)*, para. 155.

² *Ibid.*, *Seventy-second Session, Supplement No. 17 (A/72/17)*, para. 440.

Transparency Repository databases and to deliver technical assistance and other promotional and dissemination activities online. Presenting UNCITRAL texts in forms and ways that the target audience use more widely and understand better may be the next step towards making the UNCITRAL presence in the online world more visible and by this ensuring the effective outreach of UNCITRAL to the intended audience.

7. Taking such steps will be in line with the United Nations strategies that aim at leveraging new technologies to better deliver individual and Organization-wide mandates.³ Those strategies aim at incentivizing an innovative culture across the United Nations in which both successes and failures from exposure to new technologies are considered a source of learning. The Innovation Lab in the Executive Office of the Secretary-General and the United Nations Innovation Network (UNIN) are meant to support ongoing innovation initiatives and provide an opportunity to scale up where relevant.

8. Engagement with new technologies should be seen not as a new mandate but as a necessary component of the successful implementation of the existing United Nations mandates. Some international organizations, including those that are part of the United Nations system, already use online tools for the implementation of various aspects of their mandate, including as a way to present their legal texts.⁴ Most of such tools are presented in a mobile device responsive form, taking into account that in many developing countries the use of mobile devices far exceeds the use of computers.

B. Online tools as form of United Nations publications

9. Online tools containing UNCITRAL texts will be subject to United Nations rules and guidelines applicable to United Nations publications. The term “United Nations publication” refers to any written material issued by or for the United Nations to a defined external audience. United Nations publications “may be published in print or electronic form, including as mobile applications, and in any other format or media as technology evolves”.⁵

10. Since the late 80s, applicable rules on United Nations publications have addressed publishing in an electronic format.⁶ They envisage both purely electronic

³ See e.g., the United Nations Secretary-General’s Strategy on New Technologies, launched in 2018, at <http://www.un.org/en/newtechnologies/images/pdf/SGs-Strategy-on-New-Technologies.pdf>

⁴ See e.g., a number of United Nations texts, including the Charter of the United Nations and Basic Facts about the United Nations, presented as apps (<https://shop.un.org/apps>); a mobile device responsive website linking Sustainable Development Goals with targets and implementation data, launched by the United Nations Department of Economic and Social Affairs (DESA) (<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>); an online presentation by the United Nations Office on Drugs and Crime of the Legislative Guide on the United Nations Convention against Transnational Organized Crime (<https://www.unodc.org/cld/v3/sherloc/legislative-guide/index.html?lng=en>); the International Labour Organization’s mobile device responsive website that provides interactive journeys through the world of work (<https://www.ilo.org/infostories>); and an interactive practical guidelines for efficient recovery of stolen assets, developed within the framework of the Lausanne Process under the mandate given by the Conference of State Parties to the United Nations Convention against Corruption (<https://guidelines.assetrecovery.org/guidelines>). Different types of online tools are also used for technical assistance and capacity-building (see e.g., “Outer Space Treaty Quiz” of the United Nations Office for Outer Space Affairs (UNOOSA) on YouTube (https://www.youtube.com/watch?v=5y_6VrHS1_w)).

⁵ ST/SGB/2012/2, footnote 1.

⁶ See e.g., the Guidelines for Electronic Publishing (ST/AI/189/Add.26) (http://www.dgacm.org/editorialmanual/ed-guidelines/policy_questions/st_ai_189_add26.pdf); Guidelines for Publishing in an Electronic Format (ST/AI/189/Add.28) (http://www.dgacm.org/editorialmanual/ed-guidelines/policy_questions/st_ai_189_add28.pdf); United Nations Internet Publishing (ST/AI/2001/5) (http://www.dgacm.org/editorialmanual/ed-guidelines/policy_questions/st_ai_2001_5.pdf); and Secretary-General’s Bulletin on the Use of Information and Communication Technology Resources and Data (ST/SGB/2004/15)

publications and a combination of publications in the electronic format with distribution in print subject to certain limitations. For example, as a general rule, parliamentary documentation cannot be disseminated in any electronic format until it has been officially released⁷ while certain materials, in particular of a sensitive nature, cannot be disseminated electronically at all, or printed versions of some such materials continue to serve as the copies of the record for official purposes, unless the United Nations library and editorial services specifically decide otherwise.⁸ Where both print and electronic formats are envisaged, complete consistency between the two formats should be ensured. Where, for technical reasons inherent to the electronic format, complete correspondence is not possible, the difference should be explained in documentation accompanying the product or service.⁹

11. More recent guidelines specifically address procedures and objectives for disseminating United Nations materials on the Internet. The administrative instruction on United Nations Internet publishing establishes an administrative foundation and framework for maintaining the United Nations websites and for the development and implementation of policies concerning Internet projects. It defines “United Nations Internet publishing” as the provision of any textual, tabular, graphic or audio-visual material to the public by or on behalf of the United Nations on the Internet.¹⁰

C. General requirements applicable to United Nations publications

12. Regardless of whether online tools containing United Nations legal texts are made available only on the Internet or in combination with printed versions, they must comply with generally applicable United Nations publications requirements,¹¹ such as the requirement to: (a) obtain an appropriate legislative mandate and administrative approvals for a publication in question; and (b) comply with the United Nations quality and editorial standards, rules on multilingualism, joint publications and copyright, referencing and archiving standards, principles on the use of the United Nations emblem and administrative instructions governing the control and limitation of documentation.¹² Additional rules may apply depending on the presence of certain features in the content of an online tool, including photos, maps, links to external websites and third-party materials.¹³

13. Online tools will be expected, as any United Nations publication, to be included in the publications programme of an author department (the International Trade Law Division of the Office of Legal Affairs (OLA/ITLD) for UNCITRAL) after they have been approved by an intergovernmental body. Online tools would be part of the Internet portion of such programme.¹⁴ Any proposals for publishing, including Internet publishing, with financial implications can be approved only after the

(<https://oios.un.org/resources/2015/01/ST-SGB-2004-15.pdf>).

⁷ ST/AI/189/Add.28, para. 18. See also para. 3.17 of ST/AI/2001/5 that reiterates that parliamentary documentation must be posted in accordance with policies governing its official dissemination. Advance text and unedited draft or incomplete versions of parliamentary documents should not be disseminated on the Internet, except in consultation with the Chairman of the concerned body and its Secretary, and with an appropriate disclaimer.

⁸ ST/AI/189/Add.28, paras. 8 and 17.

⁹ Ibid., para. 11.

¹⁰ ST/AI/2001/5, para. 1.2.

¹¹ In addition to those contained in ST/AI/189 and addenda, such requirements will include for example those found in Secretary-General’s Bulletin on Record-Keeping and the Management of United Nations Archives (ST/SGB/2007/5) (<https://undocs.org/ST/SGB/2007/5>) and Secretary-General’s Bulletin on Information Sensitivity, Classification and Handling (ST/SGB/2007/6) (<https://undocs.org/ST/SGB/2007/6>).

¹² ST/AI/189/Add.28, paras. 1, 9–12, 15, 16, and 22–28, and ST/AI/2001/5, paras. 3.10–3.11, 3.22–3.26, 3.31 and 5.1–5.6.

¹³ ST/AI/189/Add.28, paras. 22–24, and ST/AI/2001/5, paras. 3.6, 3.12, 3.28–3.30 and 5.5.

¹⁴ This does not apply to United Nations documents issued for consideration by an intergovernmental body. See ST/SGB/2012/2, footnote 2.

statement of programme budget implications arising from such proposals has been considered by the relevant intergovernmental body.

14. The publication sales services should be consulted at the initial stage of planning the dissemination on the Internet of any publication that is normally issued as a sales publication in print. The United Nations publications sales services have the right of first refusal in electronic distribution of materials previously issued as printed sales publications.¹⁵ In the case of United Nations databases and other information services not previously issued as sales publications but that have commercial value, the sale of information over the Internet subject to United Nations pricing policies may be arranged through the cooperation of an author department, publication sales office and information technology services (ITS).¹⁶ There are examples of United Nations digital products (apps, databases) issued as sales publications.¹⁷

15. All sales publications are deemed to have a commercial value and can be sold. Nevertheless, applicable guidelines require the Secretariat to ensure free access to sales publications by Member States, partner institutions as well as other stakeholders in less developed regions, especially the least developed countries.¹⁸ They can be made publicly available through United Nations websites. If issued as a sales publication, United Nations publications are assigned an International Standard Book Number (ISBN/eISBN) or for serials and periodicals an International Standard Serial Number (ISSN/eISSN). This makes their tracking by libraries, research institutions and other users easier. Non-sales publications are not assigned with (e)ISBN or (e)ISSN.

D. Specific requirements applicable to online tools

16. Online tools may be created as apps, websites, including mobile device responsive websites, or tools in another format. A [mobile device responsive website](#) is similar to any other website but designed for the smaller handheld display and touch-screen interface.

17. According to the information received by the UNCITRAL secretariat, a set of rules for United Nations apps is being prepared by relevant United Nations Secretariat units. Tools will also be made available that would allow United Nations entities to develop own apps rather than to rely on those developed by commercial providers.

18. The United Nations Department of Global Communication (DGC)¹⁹ previously known as the Department of Public Information (DPI), sets the Organization's standards for United Nations websites, including on: (a) United Nations web branding to ensure that any website created by a United Nations entity is immediately recognizable as an authentic United Nations site; (b) usability and accessibility for the disabled²⁰ to ensure readability of the text, better organization of the content and clean and simple design, all aimed at ease of use in all regions, including those with less advanced hardware and software infrastructure and availability;²¹ (c) style consistency²² to ensure adherence to the United Nations common style as regards font, colour, language and navigation bars, masthead, headings, footers, logo and search; and (d) a responsive layout to make a website responsive to different formats depending on the device used (mobile phones, tablets, desktops). Those standards reiterate the need for compliance with United Nations editorial and publications rules

¹⁵ ST/AI/189/Add.28, paras. 5, 20 and 21 and ST/AI/2001/5, para. 4.2.

¹⁶ ST/AI/2001/5, para. 4.2.

¹⁷ See shop.un.org.

¹⁸ ST/AI/189/Add.28, paras. 20, 21 and 31, and ST/AI/2001/5, paras. 4.3.

¹⁹ <http://www.un.org/en/sections/departments/departments-global-communications/index.html>.

²⁰ <http://www.un.org/en/webaccessibility/index.shtml>.

²¹ ST/AI/2001/5, para. 3.16.

²² <https://www.un.org/styleguide/>.

and multilingualism.²³ For ease of reference, all standards applicable to United Nations websites have been compiled in the online United Nations Web Guidelines²⁴ by the DGC Web Services Section (WSS). The online Guidelines also assist users with the steps involved in website planning, budgeting and building.

19. It is required that all United Nations websites should be linked to the United Nations main domain (un.org) and the content of any United Nations website should physically reside on the web server operated by the United Nations unless a special arrangement is approved by the United Nations Publications Board.²⁵ According to the uniform resource locators guidelines, any lower level URLs have to be linked to the generic top level domain (i.e., in the case of UNCITRAL, to the uncitral.un.org) and should be thematically meaningful. Abbreviations and acronyms not widely used should be avoided.²⁶ Those requirements, among others, aim at ensuring United Nations ownership and access to its online data as well as portability and preservation of such data. In addition, the author department is required to ensure long-term archival and preservation of substantive materials prepared exclusively for the Internet by other means, including paper-based means where necessary.²⁷

20. The common platform for creation of United Nations websites, Drupal 7, to which the UNCITRAL website migrated last year, supports creation of mobile device responsive websites and compliance with other United Nations website standards including editability in the six official languages of the United Nations, printability, interoperability and other standards referred to in paragraph 18 above.

21. According to applicable requirements, electronic products and services are to be thoroughly tested before they are made available to the public. Guidance documents for users of electronic products or services are expected to be provided both as part of the electronic product or service itself and in printed form with the webmaster's email address included.²⁸ The author department is expected to maintain a written record of the testing process and comments received.²⁹ In addition, the author department is expected to establish *post hoc* technical support, monitoring and evaluation features as part of an electronic product.³⁰

22. The author department is expected to assume and maintain the full responsibility and overall control over electronic products and services, including developing, authoring, editing and coding the content, coordinating content with related sites, archiving and deleting material, and ensuring conformity with organization-wide software, editorial and design standards, among others.³¹ As such, it is expected to make adequate staffing and budgetary provisions to ensure that it can meet such responsibility.³² In particular, each United Nations Internet site and home page should have a United Nations staff member designated as webmaster, who shall be responsible for ensuring technical operations and the maintenance of the site in cooperation with ITS, maintaining liaison with the appropriate publications planning officer, the webmaster of the main United Nations website and subsidiary bodies of the United Nations Publications Board dealing with Internet matters.³³ Author

²³ <https://www.un.org/en/sections/web-governance/minimum-standards-multilingualism-united-nations-websites/index.html>. A number of General Assembly resolutions have addressed multilingualism in the specific context of United Nations websites (e.g., resolutions 50/11, 52/23, 52/214, 54/64, 56/262, 59/309, 63/306, 65/311, 67/124, 67/292, 69/324, 71/101 and 71/328).

²⁴ <http://www.un.org/webguidelines/>.

²⁵ ST/AI/2001/5, para. 3.8.

²⁶ Ibid., para. 3.4.

²⁷ ST/AI/2001/5, para. 3.31 and ST/SGB/2007/5, para. 6.1.

²⁸ ST/AI/189/Add.28, para. 13 and ST/AI/2001/5, para. 2.9.

²⁹ ST/AI/189/Add.28, para. 13.

³⁰ ST/AI/189/Add.28, para. 14 and ST/AI/2001/5, para. 2.11.

³¹ ST/AI/189/Add.26, para. 2, ST/AI/189/Add.28, paras. 4, 6, 9 and 10 and ST/AI/2001/5, paras. 2.8 and 3.9.

³² ST/AI/189/Add.26, paras. 2 and 9, ST/AI/189/Add.28, para. 7 and ST/AI/2001/5, paras. 2.9 and 3.13.

³³ ST/AI/2001/5, para. 2.9.

departments are also responsible for monitoring and evaluating their websites in order to better define the objectives of and principal audiences for the individual sites.³⁴

III. Deviations from UNCITRAL publication practices and budgetary implications

A. Current practices with UNCITRAL publications

23. Most of the UNCITRAL publications have been issued as both paper booklets and e-books and made publicly available on the UNCITRAL website. Earlier publications were issued only as paper booklets and their scanned copy is reproduced on the UNCITRAL website. Some publications have been issued only in an electronic form (e.g., the Guide to Enactment of the UNCITRAL Model Law on Public Procurement or the UNCITRAL Model Law on Cross-Border Insolvency: The Judicial Perspective) but they can be printed on demand with no additional text processing, formatting or styling required. Usual printing costs would apply.

24. UNCITRAL publications in paper or as paper booklets and e-books have been issued, as a general rule, as United Nations sales publications. As such, they have been processed by the DGC's Sales and Marketing Section and assigned with ISBN or ISSN (eISBN/eISSN for electronic versions). Upon decision of the author department, none of UNCITRAL publications existing only as e-books have been issued as sales publications.

25. Electronic publications or electronic reproduction of printed publications appear in a PDF form on the UNCITRAL website (Texts and Status web page) in the six official languages of the United Nations. Key word search, copying and pasting and printability are ensured in most cases but editability and easy portability or reproduction in formats other than the one used for publication are not enabled. Their long-term preservation and archiving is achieved through the United Nations Official Documents System (UNODS; <https://documents.un.org>) where they appear as a publication and in many cases also as part of the official records of the Commission (e.g., if a published text is annexed to the report of a particular session of UNCITRAL) as well as of the General Assembly (e.g., if a published text is annexed to a General Assembly resolution). Nevertheless, publications tend to be more accurate since they incorporate editorial corrections made during the preparation of a publication in the six official languages of the United Nations, after the adoption or approval of texts by the Commission or the General Assembly.

26. There has not been much experimentation in the UNCITRAL secretariat with presenting the legal content emanating from the work of UNCITRAL in the form of online tools. The only online tools hosted on the UNCITRAL website are in the form of online databases (CLOUT, the Transparency Repository and the UNCITRAL law library catalogue). In addition, the UNCITRAL secretariat partnered with other institutions in developing online databases on some UNCITRAL texts (e.g., <http://newyorkconvention1958.org/> or <http://iicl.law.pace.edu/cisg/cisg>).

27. There is no separate Internet portion of the publication programme in the budget of UNCITRAL, its secretariat or its law library. Costs of printing services (printing of new publications and rerolls) are covered by the contractual services funds of the UNCITRAL regular budget. Costs of the CLOUT database maintenance, the UNCITRAL website hosting, including software and backup hosting, library cataloguing website hosting, hosting of a UNCITRAL State-dedicated web page on the UNOV/UNODC website and other IT-related costs are covered from contractual services funds of the OLA/ITLD regular budget. This does not include costs of the maintenance of the Transparency Repository, which are covered from extrabudgetary resources.

³⁴ Ibid., para. 2.11.

B. Implications of using online tools

28. UNCITRAL's increased online presence would necessitate deviating from the existing practice of posting UNCITRAL texts on the UNCITRAL website, either as an electronic publication or an electronic reproduction of a printed publication. At a minimum, the content of UNCITRAL texts would be presented in a mobile device responsive form, with due regard to United Nations policies applicable to United Nations publications, including as regards multilingualism and accessibility, as explained in chapter II above, as well as any future policies on apps.

29. Since the goal of online tools on UNCITRAL legal texts would be to offer the legal content to the widest possible audience, a mobile device responsive website seems to be the most appropriate tool in comparison with an app. The former ensures instant availability via a browser and compatibility across a range of devices, technologies and providers. A website is also easier and less expensive to develop, maintain, update, find and share via a link. Apps, on the other hand, require the user to first download and install it from an app marketplace before the content or application can be viewed. A separate version of an app may need to be developed for each type of device. All of this makes app upgrades, testing, compatibility and ongoing development more expensive and complex. This understanding has been confirmed by the secretariat of the United Nations Publications Board that in response to a query from the UNCITRAL secretariat on the most suitable format for an online tool on a UNCITRAL legal text stated: "The use-case for the UNCITRAL project is not well suited for a mobile app. Unless there are specific needs that will differentiate the app from existing platforms, the dissemination of publications should be done via a mobile (responsive) website. Mobile apps require significant development and maintenance (development and regular updates for both Android and Apple) and have less reach and discoverability than a site. Unless native functionality or processing is required, and regular usage is expected, it makes better sense to invest efforts towards a mobile (responsive) website."

30. The value of apps and other online tools (e.g., video platforms, online questionnaires, crowdsourcing tools) for the UNCITRAL work should not however be entirely discarded, in particular for technical assistance and other promotional activities as well as legal research and drafting. Apps for example may be a suitable option for training and capacity-building modules.

31. To alleviate concerns about retention, preservation and integrity of the original text that is used as the basis for preparing an online tool, any online tool may be accompanied by a PDF version of the text as reviewed, approved or adopted by UNCITRAL (or the General Assembly, as the case may be). Such version will incorporate changes agreed to be made by UNCITRAL to a version contained in an official document before the Commission (A/CN.9/ document). Unless it is a voluminous text, it could be annexed to the report of UNCITRAL at the time of review, approval or adoption, when doable, as is currently the practice with draft conventions, model laws and other texts, or to a report of a future session. This would allow preservation of the text as part of the official records of the Commission on paper as well as electronically through UNODS.

32. A widespread use of online tools as a way of presenting UNCITRAL texts will have financial and human resources implications since the preparation of high-quality online tools requires close interaction and integration of traditional communication, publication and computing skills, which at present are not available in the UNCITRAL secretariat. Currently, there is no IT specialist in OLA/ITLD. A legal officer at P-3 level is the webmaster of the UNCITRAL website (with editing, publishing and website accounts management rights) who also oversees the functioning of the UNCITRAL law library and the UNCITRAL publication programme (print and electronic) and performs other duties. OLA/ITLD thus heavily relies on ITS in New York and Vienna. The past experience of ITLD with the use of in-house ITS (in particular for CLOUT and the Transparency Repository) indicates that their services tend to be costly and not responding to the needs.

33. Although expanding the competitive base for ITS by including private sector providers or United Nations or other intergovernmental bodies that are specializing in providing data management and security services would certainly result in lower costs for the same or even better services, engagement of outsiders may be a time consuming and cumbersome process. It would require obtaining in-house ITS approvals and completing procurement processes and other administrative steps to make access to the United Nations system possible. United Nations staff members may be exposed to disciplinary actions for not complying with those requirements and providing unauthorized access to United Nations information technology (IT) resources and data to outsiders.³⁵

34. Partnerships with other stakeholders, as was the case with the New York Convention Guide (see para. 26 above), may be an option although it would also require completing several formal steps before a joint project can proceed. In addition, as a general rule, online tools should be hosted on the UNCITRAL website to benefit from the supporting United Nations IT infrastructure that would ensure preservation, portability and interoperability of UNCITRAL online tools and their compliance with all applicable United Nations standards, including on multilingualism, accessibility, inclusiveness and the broadest outreach.

35. To make the implementation of online tools projects possible within the existing resources and to ensure the long-term sustainability of such projects, online tools should be simple to launch and maintain in-house in the six official languages of the United Nations without significant input required from IT specialists. In addition, they should be able to be launched relatively fast, within a single budgetary cycle, taking into account that carrying over unspent resources to another budgetary cycle is not allowed under the current budget rules.

36. The most resource-demanding stage would be at the time of developing templates for various categories of online tools (legal texts online tools, technical assistance and other promotional tools, crowdsourcing and other legal research tools, etc.) that could be subsequently used by officers for different needs. Features and design of online tools may vary greatly depending on the needs that they purport to fulfil and intended users. Templates should provide for sufficient choice among various options and flexibility to use them. For example, it may be appropriate to seek users' feedback in some cases while doing so in other cases would be inappropriate. Templates could provide an option to enable or disable such feature or enable it to a particular group of users rather than the general public. Consideration will also need to be given, where and as applicable, to the protection of confidential information, data security (including those of the users), and internal procedures for addressing security breaches, in line with existing regulations, rules, policies and procedures applicable to the United Nations.

37. Costs may be absorbed within the existing resources (e.g., using funds currently allocated to publishing and printing). Extrabudgetary resources may be solicited for creation of a particular online tool if necessary (e.g., as was done for the Transparency Repository).

38. Various factors will influence time and resources needed for adjusting a template to a particular online tool. In the case of a mobile device responsive website, such factors will include a number of pages that the site will have, how often they will need to be updated, the need for integration of the multimedia content, maps, graphics, photos, images and other sophisticated features, and extent of cross-referencing.

39. All ITLD staff members will be required to undertake specific training. Skills and experience with legal visualization and online tools may be expected to become more widespread among ITLD staff members through the natural process of rejuvenation of the workforce. Nevertheless, it could be considered that there should be an officer in ITLD who, in addition to being a substantive expert on commercial law matters, would be primarily responsible for development of online tools and thus

³⁵ [ST/SGB/2004/15](#), section 5 and commentary thereto in an annex to that document.

be expected to be proficient with the existing features of the platform on which the UNCITRAL website resides as well as with coding and development of additional permissible features. The job description of such officer (e.g., a P-3 officer who is serving as the Legal Librarian in OLA/ITLD) may need to be revised to that end.

40. Switching to online tools as ways of presenting UNCITRAL publications to the public may have other implications not described in this paper. To assess all of them carefully and completely, a step-by-step approach to the transition to the online tools would be justified, especially in the light of realities of the digital divide and the need to foster transparency and inclusiveness in the UNCITRAL work.

41. The Commission may consider that, at least at the initial stage, the need for an online tool should be assessed on a case-by-case basis in the light of all implications listed above. It might be prudent to start with Secretariat texts rather than UNCITRAL legal texts and with future texts rather than already existing ones whose style and structure may make presenting them as online tools difficult. A decision on presenting a legal text as an online tool should however be made as early as possible during the preparation of a text since such decision would have impact on the structure of the text, including the use of footnotes, headings and sub-headings.

42. Gradual switching to online tools should be seen as an unavoidable step. Such obvious benefits as greening, outreach and costs savings, among others, expect to outweigh possible initial impediments.

C. Status of a pilot online tool

43. The pilot online tool containing the draft notes on the main issues of cloud computing contracts found in document [A/CN.9/974](#), which is before the Commission at its fifty-second session, will be made available at <https://uncitral.un.org/en/cloud> before the fifty-second session of the Commission, only in English. It was created, as requested (see para. 1 above), within the existing resources, by ITLD, without involvement of ITS. The involvement of in-house ITS or outside IT specialists would have been costly, time consuming and cumbersome for reasons explained in paragraphs 32 and 33 above.

44. Since the text that served the basis of the pilot online tool is a draft, it was considered premature to invest more time and resources on the development of the online tool and producing it in five other official languages of the United Nations. Otherwise, the need would arise to make changes in features and the legal content in the six language versions of the online tool. The likelihood of introducing changes in the draft is high since it will be the first time the Commission will see the draft.

45. The Commission may wish to assess implications of deviating from the UNCITRAL publication practices. If the Commission decides to proceed with the online tool for cloud computing notes, an improved online tool incorporating the final content of cloud computing notes as reviewed and approved by the Commission for publication would be released in the six official languages of the United Nations in compliance with the United Nations requirements on multilingualism, accessibility and other applicable standards. The services of the United Nations Electronic Publication Unit may also be relied upon at that stage.
