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UNITED NATIONS CENTRE FOR TRADE FACILITATION AND  
ELECTRONIC BUSINESS (UN/CEFACT)

DEVELOPMENT, CURRENT STATUS AND PROPOSED STRATEGY  
FOR THE SIGNED DIGITAL DOCUMENT INTEROPERABILITY  
RECOMMENDATION (SDDIR)

DRAFT RECOMMENDATION 37

Note submitted by the Bureau

## **Development, current status and proposed strategy for the Signed Digital Document Interoperability Recommendation (SDDIR) - Draft Recommendation 37**

1. The Signed Digital Document Interoperability Recommendation (SDDIR) sets out a best practice approach to message security and interoperability.

### Original submission

2. Draft Recommendation 37 on Signed Digital [Evidence/Document]<sup>1</sup> Interoperability was submitted for approval to the 16th UN/CEFACT Plenary (8-10 December 2010) in document ECE/TRADE/C/CEFACT/2010/14, dated 27 September 2010. Although this session did not approve the draft, it submitted it to intersessional approval that was to be concluded by 11 February 2011.

### Intersessional approval process

3. The secretariat announced on 16 February 2011 that the intersessional approval period for Draft Recommendation 37 had ended and comments had been received from Canada, the Russian Federation and the United States. The Bureau decided to submit these comments, for review, to the project team. The Project Team processed the comments from delegations and organized a series of conference calls where these comments were discussed.

### 17th session of UN/CEFACT in July 2011

4. Draft Recommendation 37 was again considered at the 17th Plenary (7-8 July 2011). The 17th Plenary did not approve the draft and decided to extend the review period for Draft Recommendation 37 within the Open Development Process until 12 September 2011. It invited delegations to send comments on recommendation 37 to the Project Team, which were to be responded to “with the objective of having a revised version submitted to the next Plenary.” (See Decision 11-8 of the 17th Plenary Report - ECE/C/CEFACT/2011/2 paragraph 37).

### Review period August - November 2011

5. To facilitate this extended review, the Bureau, in August 2011, requested the project team to organize consultations on draft Recommendation 37. A series of conference calls were organized in September and October 2011 where comments received from Canada, Japan, the Russian Federation, the United States as well as the United Nations Commission for International Trade Law (UNCITRAL) and a number of individual experts were discussed.

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<sup>1</sup> Since the 16th session in 2010, the word « Evidence » in the title has been replaced with « Document »

6. The current revision of the SDDIR takes into account content related comments submitted before (and after) the extension of the public review (September 2011).
7. Broadly speaking the comments fell into 3 categories:
  - a) Technology (neutrality, PKI, certificates, etc.)
  - b) Legal aspects (implications, wording, etc.)
  - c) Scope (functional versus technical, organizational and legal, etc.)
8. The current version of the SDDIR addresses these comments in the following ways:
  - a) On the technology side, the project team introduced the following changes to ensure that the SDDIR was technologically neutral and not favouring any specific implementation by:
    - i. Removing the annexes showing examples of implementations, the size of which made the recommendation look like a technical document. This considerably shortened the document.
    - ii. Deleting or changing any remaining technical terms. For example, changing the word “Certificate” (which, to many, implied the mention of PKI technology) to “Digital Identity”.
  - b) On the legal side, the project team made significant changes to ensure the Recommendation carried no legal obligations:
    - i. Changed the name of the recommendation from “Signed Digital Evidence Interoperability Recommendation” to “Signed Digital Document Interoperability Recommendation”.
    - ii. Changed the word "Signatory" and "Certifier" to "Purported signatory" and "Purported certifier". This is an important change because it stresses the fact that the recommendation does not assume that the digital identity or signature is a legal identity or signature.
    - iii. Added very clear and specific warnings and disclaimers stating that this recommendation does not deal with legal issues and that a party's legal responsibilities are not dismissed when adopting the SDDIR.
  - c) On the scope side, one comment wanted the SDDIR to also deal with legal and organizational aspects at the same time as functional aspects and the project team felt that this was neither possible nor desirable. This issue has now been taken up by the UN/CEFACT Bureau and its consideration forms part of the proposal that follows (please see Section 6 of this note).

#### Current status

9. During the 17<sup>th</sup> Plenary and in subsequent deliberations, the Bureau has been informed by some member States and intergovernmental organizations of projects related to the work of the Project Team on Signed Digital Document Interoperability. Clearly, the significant discussion around this topic exposes the wide-ranging implications of such a recommendation.

#### Relationship to ISO/DIS 14533 (Long term signature profiles).

10. Discussions have been held with ISO under the guidance of the Memorandum of Understanding Meeting Group (MOUMG). ISO (with input from the European Telecommunications Standards Institute (ETSI)), have developed the draft ISO/DIS 14533 technical standard defining long term digital signature profiles.

11. The SDDIR describes a functional set of requirements that may be taken into account for defining such profiles.

12. The simplest way to understand the relationship between the two is to see the SDDIR as a best practice functional guide to defining a technical solution, which could include using ISO/DIS 14533.

#### Relationship to UNCITRAL Working Group IV (Electronic Commerce)

13. The concerns of UNCITRAL can be summarized as:

a) Technological neutrality

- i. Working Group IV, at their 45th session in Vienna 10 - 14 October 2011, noted that “the general approach adopted in the draft Recommendation seemed to run against the fundamental principles of UNCITRAL texts on electronic commerce, in particular, the principle of technology neutrality, by favouring a specific type of electronic signature. The draft Recommendation seemed not to allow parties the flexibility to agree on the technology more appropriate to their needs.”
- ii. To address this concern, the information elements have now been expressed in general prose text, not specific to any technology. This emphasizes that it is the business information requirements being identified and not the technical implementation of those.
- iii. As shown above, organizations may adopt SDDIR and then subsequently agree on implementing this in any technology appropriate to their needs (such as ISO/DIS 14533).

b) Use of legal terminology

- i. Working Group IV also noted that "certain terms used in the draft Recommendation, such as “evidence”, had legal implications, despite the disclaimer contained in the draft Recommendation stating the contrary.”
- ii. This concern has been addressed by using the term “document” instead of “evidence” to emphasize that the SDDIR does not imply any legal commitment.

### Proposed Future Strategy

14. The Bureau has discussed the status of Signed Digital Document Interoperability Recommendation and different ways of addressing the related policy issues. The Bureau is keen to ensure that UN/CEFACT's work contributes to and fits within a complete set of recommendations for the interoperability of signed documents.

15. The issue of Signed Digital Document interoperability covers the entire interoperability framework (technology, organizational, commercial and legal aspects). If these components are developed separately, there is a risk that different specifications such as SDDIR will offer incompatible solutions and it will not be possible to achieve global interoperability.

16. The Bureau wishes to propose a framework wherein: UNCITRAL describes the legal conditions for interoperability; UN/CEFACT defines best practice for the organizational and functional issues; and ISO creates specific standards for the technical layers of the framework. If such a framework can be established it will be much easier to approve future recommendations and standards, as they will be based on the same definitions and use a complementary approach.

17. Although the UN/CEFACT project team recognized this in their work, and took these aspects into account in order to draft a recommendation that is independent of legal and technical aspects, the Bureau believes that ongoing governance of these issues is needed in order to ensure that the work from all parties remains aligned.

18. The challenge with maintaining related specifications in independent forums is that they eventually disconnect, ultimately creating incompatibility between them.

19. At this stage the Bureau sees an opportunity to establish a governing framework because all pertinent specifications are at their draft stage.

20. Similar concepts were suggested by the Russian delegation who, the Bureau understands, have made a proposal to UNCITRAL on this issue.

21. The Bureau proposes that ISO and UNCITRAL be approached to work jointly on a framework, using the proximity of the 20<sup>th</sup> UN/CEFACT Forum meeting with that of UNCITRAL Working Group IV (Electronic Commerce) in Vienna in late 2012, as an opportunity to develop this further.

Proposed resolution on draft Recommendation 37

22- The Bureau proposes that based on discussions in the Plenary UN/CEFACT should proceed as follows:

- a) Initiate work to establish a framework for the ongoing governance of digital signature interoperability in coordination with UNCITRAL and ISO;
  - b) The Plenary should request that the structure of this framework be established by November 2012; and
  - c) Include in the structure a plan that will enable Draft Recommendation 37 to be put before the Plenary for (intersessional) approval.
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