UN/CEFACT Project Proposal

Recommendation for ensuring legally significant trusted trans-boundary electronic interaction

Originally Submitted Date: 2012-06-27
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1.   Project purpose

A rapid development of information technologies has given rise to their application practically in all spheres of society's life. Mobile communications ensures an easy connection to the Internet network and information exchange regardless of time and geography. It can be stated that information accessibility is ensured, but the same cannot be said about legal validity.

Ensuring legal significance of electronic interaction is a complex problem and includes legal, organizational and technical aspects, whose solution is subject to both other UN/CEFACT recommendations and cooperation with the UNCITRAL and various standardization organizations.

Specific requirements for ensuring validity of electronic data and legal significance of electronic interaction vary from industry to industry and from country to country, and there is no one-size-fits-all solution. The result is an increasingly fragmented landscape of unconnected infrastructures and systems that impact the reliability, traceability and integrity of electronic data transfer when exchanging electronic data. In effect creating "islands of trust" in a sea of uncertainty.

The purposes of this project are:

- to formulate basic principles and prepare a recommendation on establishing coordinating infrastructures for enabling legal significance of trans-boundary[1] electronic interaction in trade scenarios;

- to study infrastructures for trans-boundary electronic interaction in trade scenarios in view of identifying the UNECE recommendations package on the subject.

2. Project scope

The UN/CEFACT Program of Work 2012-2013 identifies as its Key Activity Area 1.2.2:

"Publication and maintenance of recommendations to countries and the private sector on the use of UN/CEFACT recommendations, standards and instruments to facilitate international trade."

Within this activity, this project has the following scope:

- Establish a common terminology consistent with other recommendations and UNCITRAL documents.

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[1] Trans-boundary is taken to mean between different legal, organizational or technical communities of use, such as occurs in cross border exchanges

- Identify the principles of establishing and operating regional and international coordination organizations for ensuring trust in infrastructures that satisfy organizational and administrative regulation of legally significant trans boundary electronic data exchange

- Identify the underlying principles and content for Model MoUs/Agreements between two or more countries regarding Mutual Recognition of Digital and Electronic Signature Certificates

- Identify approaches to ensuring interoperability of technical systems, infrastructures of trans boundary electronic data exchange and end users including functional requirements and information security requirements.

- Identify appropriate trust services types provided by the trusted infrastructures for ensuring legally significant trans boundary electronic data exchange.

- Identify the possible levels of trust afforded by the trusted infrastructures and mechanisms by which these levels can be provided. For example, lower levels of trust may not require government directives for achieving a legally significant electronic interaction. UN/CEFACT recognizes that guidance for required levels (possibly higher) of trust and for desired levels of authentication depends on specific circumstances but such guidance does not constitute the scope of this recommendation. For these different levels of trust identify:

> - common set of requirements trust services must comply with. Such requirements are to cover the following aspects: security, accessibility, and interoperability

> - best practices for trust services initiation, certification and audit procedures.

- Identification of international organizations in different areas of normative and legal regulation and policies (such as WTO, UNCITRAL, WCO and others) for participation in the defining conditions for establishing necessary level of trust between the participants of the trusted infrastructure that will ensure legal significance of transboundary electronic exchange of data issued in different jurisdictions.

- Identification of international organizations in different areas of standardization (such as ISO, W3C, ETSI and others) for participation in all the technical aspects of forming and functioning transboundary trust space.

A possible framework for the trusted exchange of electronic data is described by the table below:

Interoperability layers	Documents	Organizations
Political context	Trade agreements	UNCITRAL
Legal interoperability	International laws	
Legislative alignment	WTO/UN directives	
Organizational interoperability	Trade recommendations	UN/CEFACT
Organization/process alignment	Business processes	
Semantic interoperability	Information requirements	
Semantic alignment	Structures for exchanges	ISO/ETSI
Technical interoperability	Syntax expressions	
Interaction & transport	Infrastructures	

All components in this framework must comply with the rules on commercial transactions (including legal and legislative guides and recommendations) as defined by UNCITRAL.

Any recommendations for the trusted exchange of electronic data must be based on the principles of technical neutrality, applicability and cost efficiency. Recommendations must not imply the implementation and use of specific high-tech information and communication technology (ICT).

However benefits may be enhanced, if stakeholders identify and adopt standardized technologies for implementation of these recommendations.

3. Project deliverables

The project deliverables are:

- Recommendation for ensuring legally significant trusted trans-boundary electronic interaction. The key elements which will be conducted in this recommendation include:
  - o Identify the principles, approaches, trust service types, trust levels and relevant organizations required for ensuring trust in infrastructures that satisfy organizational and administrative regulation of legally significant trans boundary electronic data exchange.

- Report of cases where ensuring legally significant trusted trans-boundary electronic interaction is required. The key elements which will be conducted in this research include:
  - o analysis of infrastructures for trans-boundary electronic interaction in trade scenarios in view of identifying necessary trust levels and trust services types;
  - o identifying a cluster of recommendations for providing necessary levels of trust in infrastructures for trans-boundary electronic interaction in trade scenarios.

4. Exit criteria

The draft Recommendation and Report have completed their stated ODP stages (stated in section 11) and been approved by the Bureau.

5. Project Team membership and required functional expertise

Membership is open to experts with broad knowledge in the area of methodologies and technologies for data transport infrastructures, electronic signatures and related certification authorities, and message handling systems.

6. HoD support

Delegations supporting this are the Russian Federation, European Union, Denmark and Norway. Letters of support are attached.

7. Geographical Focus

The geographical focus is global. This recommendation will have applicability in private and public sectors.

8. Initial contributions

The following contributions are included for consideration by the Project Team and it is understood that other participants may submit additional contributions in order to ensure that as

much information as possible is obtained from those with expertise and a material interest in the project.

- **UNCITRAL**
    - Model Law on Electronic Signatures
    - Promoting confidence in electronic commerce: legal issues on international use of electronic authentication and signature methods
- **UN/CEFACT**
    - Revision of Recommendation 14 'Authentication of Trade Documents' 2013-2014 (pending final Plenary approval)
- **Regional Commonwealth in the field of communications**
    - Operating model of formation and functioning of a trans boundary trust space of the CIS Member States in the Internet[2]
    - The Methodology of the trans boundary trust space forming and functioning in the Internet network[3]
- **Pan European Public Procurement Online**
    - PEPPOL validation infrastructure[4]
- **OASIS**
    - Business Document Exchange Technical Committee[5]
- **European Commission**
    - Open e-TrustEx - secure exchange of digital documents[6]

9. Resource requirements

Participants in the project shall provide resources for their own participation.

The creation of a page on the Confluence website within the Regulatory PDA (under current, active projects) is formally requested.

The existence and functioning of the project shall not require any additional resources from the UNECE secretariat.

10. Project Leadership

Proposed Project Leader:

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Proposed Editors:

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2 http://www.en.rcc.org.ru/userdocs/docs/Transboundary_trust_space_model.pdf (as at 28 Nov 2012)
3 http://www.en.rcc.org.ru/userdocs/docs/TTS_Methodology.pdf (as at 28 Nov 2012)
4 https://joinup.ec.europa.eu/svn/peppol/PEPPOL_EIA/1-ICT_Architecture/1-ICT-eSignature_Infrastructure/12-ICT-Framework/ICT_Architecture_Framework_100.pdf (as at 28 Nov 2012)
5 https://www.oasis-open.org/committees/bdxr/charter.php (as at 28 Nov 2012)
6 https://joinup.ec.europa.eu/software/openetrustex/description (as at 28 Nov 2012)

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11. Milestones

Draft Recommendation

Yes/No	ODP Stage	Expected Completion Date (YYYY-MM-DD)
Yes[a]	Project Inception	2014-02-05
Yes	Requirements gathering	2014-05-12
Yes	Draft development	2014-07-31
Yes	Public Draft Review (required for Standards and Recommendations)	2014-12-31
Yes	Project Exit	2015-02-27
Yes	Publication	2015-03-31
Yes	Maintenance	TBD

Draft Report

Yes/No	ODP Stage	Expected Completion Date (YYYY-MM-DD)
Yes[a]	Project Inception	2014-02-05
Yes	Requirements gathering	2014-04-14
Yes	Draft development	2014-06-30
No	Public Draft Review (required for Standards and Recommendations)	
Yes	Project Exit	2014-08-29
Yes	Publication	2014-09-30
Yes	Maintenance	TBD