UN/CEFACT Project Proposal

Proposed project name:	Internet of Things for Trade Facilitation (IoT for TF)		
Date submitted:	2018-07-23	Project proposed by:	Kaushik Srinivasan
Date last updated:	2018-07-17		

1. Project purpose

Required

The Internet of Things is a network of connected devices that contain sensors and other embedded devices that are able to gather, connect and exchange data. The Internet of Things has quickly become one of the most important technology trends of this decade.

In the context of trade facilitation, the Internet of Things will play a crucial role as it enables the collection of timely and accurate data, some of which was previously not available, and its seamless integration into the flow of information used for supply chain management. The growth of the Internet of Things has led to the development of smart devices and new applications using the data that they generate in order to facilitate processes and drive efficiency in trade, agriculture, climate control, water and energy management, healthcare, foreign trade, supply chain etc.

There is ongoing research on how to further, develop and improve the ability of this technology to be used for various purposes, including its interoperability with other cutting-edge technologies such as Blockchain and Artificial Intelligence. A number of use cases were presented during the April 2018 UN/CEFACT conference held in Geneva which focused on use of IoT for Trade Facilitation.

One current project within UN/CEFACT focuses on the use of Smart Containers to track critical data, such as location, temperature or events such as door opening or closing, about shipments from origin to destination.

IoT technology has immense potential for facilitating supply chain and trade processes. The purpose of this project is to look at this technology in the context of UN/CEFACT's mandates and create a whitepaper that focuses on how IoT can be used to facilitate trade processes and key issues that need to be addressed while collecting, analyzing and using IoT data. Potentially, this work could also provide guidance to data providers, IoT device manufacturers, application developers and technology adopters.

2. Project scope

Required

NOTE: Specify project scope in terms of in-scope and out-of-scope items within the context of the UN/CEFACT Programme of Work. Include a description indicating the relationship between this project and other UN/CEFACT projects, if known. In the case of a project whose deliverables include proposed Recommendations and Standards, include projects outside of UN/CEFACT of which this project could be considered a duplicate, if any, and explain why it is not.

The project scope is to define and create white papers on the collection, analysis and use of IoT data in the context of trade processes with a view to examining:

- How IoT technology could be used to facilitate trade and related processes
- How existing UN/CEFACT deliverables could be used by IoT applications
- Possible changes to existing UN/CEFACT deliverables, or new deliverables, that could be considered in order to support IoT trade-facilitation related applications
- Key issues to consider while collecting, analyzing and distributing IoT data

All of the above will be examined from the perspective of UN/CEFACT's mandates in order to provide input to the Bureau, Programme Development Areas and Domains on

1) Possible future work and a possible common approach to IoT-related projects
2) IoT application developers as a potential new user group for UN/CEFACT standards

3. Project deliverables

Required

NOTE: Provide name and description of each deliverable.

Deliverable 1:	A white paper on technical aspects of IoT and its relation to UN/CEFACT deliverables
Deliverable 2:	A business-case/process oriented white paper on how IoT technology could be used to facilitate trade and related business processes

4. Exit Criteria

Required

NOTE: For each deliverable, list the criteria that, when met, will indicate the deliverable has been completed.

Exit Criteria for Deliv. 1:	Draft white paper ready for publication
Exit Criteria for Deliv. 2:	Draft white paper ready for publication

5. Project Team membership and required functional expertise

Membership is open to UN/CEFACT experts with broad knowledge in the area of:	IoT technology and/or trade facilitation and related business processes

In addition, Heads of Delegations may invite technical experts from their constituency to participate in the work.

Experts are expected to contribute to the work based solely on their expertise and to comply with the UN/CEFACT Code of Conduct and Ethics and the policy on Intellectual Property Rights.

6. HoD support

NOTE: At least three HoD support is required for Technical Standards, Business Standards and UNECE Recommendations – and at the request of the UN/CEFACT Bureau. (See annex IV for an optional template).

NOTE: Projects that require HoD support must obtain this within 6 months of Bureau provisional approval.

N/A			

7. Geographical focus

The geographical focus of the project is global

8. Intial contributions

The following contributions are submitted as part of this proposal. It is understood that these contributions are only for consideration by the Project Team and 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. It is also understood that the Project Team may choose to adopt one or more of these contributions "as is".

List any initial contributions:

Initial contributions include existing descriptions and technical specifications for the UN/CEFACT:

- Core Components Library (CCL);
- Business Requirement Specifications (BRSs),
- Requirement Specification Mappings (RSMs) and
- Reference Data Models (RDMs) as well as
- already published material on IoT technology and implementations,
- Blockchain work undertaken by UN/CEFACT

9. Ressource requirements

Participants in the project shall provide resources for their own participation. The existence and functioning of the project shall not require any additional resources from the UNECE secretariat.

NOTE: If specialized resources are required to complete the project, and such resources are not available within the Project Team, then those requirements should be clearly identified.

Any additional request:	

10. Proposed project leadership

Leader:	Virginia Cram Martos	E-mail:	crammartos@triangularity.net
Co-Leader:	Kaushik Srinivasan	E-mail:	kaushik@emudhra.com

11. Milestones

Note: repeat for each deliverable, if different.

The following are draft milestones of the project.

Yes/No*	ODP Stage	Expected Completion Date ***(Approval + XX months)***
Yes	Project Inception	Approval + 3 month
Yes	Requirements gathering	Approval + 6 month
Yes	Draft development	Approval + 10 month
Yes	Public Draft Review	Approval + 12 month
Yes	Project Exit	Approval + 13 month
Yes	Publication	Approval + 13 month

* NOTE: The following stages are obligatory: Project Inception, Project Exit and Publication. Public Draft Review is obligatory for recommendations, business standards and technical standards. The presence of "Yes" in the field indicates that the stage is required for the project and an expected completion date should be provided.