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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

Working Party on Customs Questions affecting Transport

Informal Ad hoc Expert Group on Conceptual and  
Technical Aspects of Computerization of the TIR Procedure

Sixteenth session  
Geneva, 28-29 April 2009  
Item 3 (c) of the provisional agenda

**REFERENCE MODEL OF THE TIR PROCEDURE**

Chapter 4 - Design

Note by the secretariat

**I. BACKGROUND**

1. At its fifteenth session, the Informal Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (further referred to as “the Expert Group”) mandated the secretariat to seek guidance from experts in the field for the preparation of the draft table of contents of Chapter 4, dedicated to the design of the eTIR project, taking into account the UMM as well as the specificities of the eTIR project.

## **II. DESIGN WORKFLOW**

2. The rationale of the Design workflow is to develop the messages and the collaborations required to exchange these messages, on the basis of the specification devised during the analysis phase. UMM envisages the use of various diagrams in the course of this phase (class diagram, use case diagram, sequence diagram, collaboration diagram, statechart (state machine) diagram, activity diagram, component diagram and deployment diagram).

3. In addition to transforming the logical description contained in Chapter 3 into a physical description, Chapter 4 should provide the technical foundations for devising the eTIR system, i.e. the detailed description of each component of the system, the interfaces allowing for the collaboration of the actors, the selection of technologies (e.g. XML, web services, ...) and detailed descriptions of fallback scenarios, from both the functional and the technical perspective.

## **III. CONSIDERATIONS BY THE EXPERT GROUP**

4. The Expert Group may wish to consider the draft table of contents for Chapter 4 as contained in Annex. Within the context of its work, the Expert Group may also wish to decide which types of diagrams will be required to complete the Design workflow and discuss the ways and means required to provide the technical information to be contained in Chapter 4, based of the first three Chapters of the Reference Model.

**Annex**

**CHAPTER 4 – DESIGN**

**CONTENTS**

4. DESIGN

4.1. Classes

4.1.1. Class diagrams

4.2. Activity

4.2.1. Detailed activity diagrams

4.2.2. Detailed sequence diagrams

4.2.3. Messages Implementation

4.2.3.1.XML

4.2.3.2.UN/EDIFACT

4.3. System architecture

4.3.1. eTIR international system

4.3.1.1.Components and interfaces

4.3.1.1.1. eTIR web services

4.3.1.1.2. Guarantee chain web services

4.3.1.1.3. Customs authorities web services

4.3.1.1.4. ITDB web services

4.3.1.2.Customs offices database

4.3.1.2.1.1.Class diagram

Annex

A. Functional fall-backs

A.1.Detailed activity diagrams

A.2.Detailed sequence diagrams

A.3.Fallback components

A.3.1.1. Printing guidelines for the paper accompanying document

A.3.1.2. eTIR website

A.3.1.2.1. Access

A.3.1.2.2. Navigation

A.3.1.2.3. Graphical user interface (GUI)

A.3.1.3. Helpdesks

B. Technical fall-backs

B.1.System duplication

B.2.Backup procedure

B.3.Backup restoration procedure

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