Intégrateur de solutions de confiance
pour les documents au service du citoyen
The digital Tachograph project

- Set up by the European Commission thru a regulation

- Main objectives:
  - Increase the road safety
  - Keep a real competition between carriers
  - Struggle against fraud

- Based on the use of:
  - An on-board unit able to record information sent by a motion sensor set on the gear box named “tachograph”
  - A smart card, namely associated to the driver

- System mandatory in extended European Union from May 2006 for new vehicles (31 countries)

- Mandatory for non EU AETR contracting parties (mainly former USSR, Balkans, Turkey) from
The main requirements

- Three **type approval certificates** are needed before being authorised to issue any tachograph or card
  - Security → European authorized laboratories
  - Functionality → National level
  - Interoperability → European level (DG-J RC)

- Each country is responsible of the card issuing for its own drivers thru a “Card Issuing Authority” which is named by the Ministry in charge of the project, usually Ministry of Transports, in the role of “State Authority”

- **Before issue a card for an applicant, each CIA must check the uniqueness of the card in all countries**

- Control bodies must be able to check any card 24/24 7/7
Tools for data exchange

- All European countries are interconnected thru the sTESTA network (secure Trans European Services for Telematics between Administrations)*, private network under the responsibility of the European Commission

- In each country, Ministries are interconnected thru national dedicated network (SETI / ADER in France)

- Each national inter-ministerial network is connected to sTESTA

- In the framework of the digital Tachograph project, European Commission has provided specifications for data exchange common interfaces, xml based, to describe the 4 types of request used

Inter-connexion general scheme

- 27 Countries from UE
  - Norway
  - Swiss
  - Iceland
  - Lichtenstein

- 4 extended European Countries
Talking about TachoNet …

Each country is responsible of its data (scheme and contain)
Talking about TachoNet ...

Each country is responsible of its data (scheme and contain)

Exchange data format and contain is common
Talking about control bodies ...

Each country is responsible of its data (scheme and contain)

Exchange data format and contain is common

Control bodies access thru their national CIA

Extended European country

sTEST

XML connector

XML connector

XML connector

XML connector

XML connector

XML connector

XML connector
A case study: check for uniqueness

- Check for uniqueness before issue of the card
  - 1 - The CIA stores data in its database with its own format
  - 2 - The data are set in the common xml model for the request
  - 3 - The request is sent by the CIA to the central system of the European Commission thru national network + sTESTA
  - 4 - The central system transfer the request to all CIAs
  - 5 - Each country receive the request
  - 6 - Each country prepares the answer from its database, and send back the request to the central system
  - 7 - The central system has received answers from the CIAs, it aggregates these answers in only one xml request, and send the result to the initial CIA.
Check for uniqueness: cinematic

1. Database storage
2. XML request
3. Request sent
4. Request dispatched
5. Answers from DB
6. Answers sent back
7. Global result sent

Extended European country

XML connector

XML request

XML answer

XML connector

XML connector

XML connector

XML connector

XML connector

XML connector

XML connector
Other case study: check card status

- Every control bodies can check every card status 24/24 7/7
  - 1 - Enforcer connexion to its national Card Issuing Authority
  - 2 - Sending of a driver card number and the country of issue (national data format)
  - 3 - The CIA system generates a TachoNet request
  - 4 - The request is sent by the CIA to the central system of the European Commission thru national network + sTESTA
  - 5 - The central system transfers the request to the concerned CIA
  - 6 - The country receives the request
  - 7 - The country prepares the answer from its database, and send back the request to the central system
  - 8 - The central system transfers the result to the initial CIA.
  - 9 - The CIA system generates the answer (national data format) and send it to the enforcer
Check card status: cinematic (e.g. SP and GR)

1 - National connexion
2 - National request
3 - \(\rightarrow\) XML request
4 - Request sent
5 - Request transferred
6 - Answer from DB
7 - Answer sent back
8 - Result sent
9 - \(\rightarrow\) National answer
The sTESTA network is a private network under the responsibility of the European Commission, dedicated to extended European Union countries for inter-connexion.

Question: how to share information between these countries and non EU AETR contracting parties?

⇒ How to allow non EU AETR contracting parties to access sTESTA?

France answer: physical mutualisation, logical separation.

This solution is set up for Albania in the framework of a State to State agreement between French and Albanian Ministries of Transports, and has been accepted by the European Commission.
Talking about countries out of Europe ... 2/2

1 - Private network between Albanian dedicated IT system and French infrastructure

2 - Albanian system can reach sTESTA thru the French physical access

3 - Albanian data flow is logically identified, and fully separated from the French one by using different digital certificates, on the same physical access
Summary

- The global framework must be described to guaranty a common way, ideally in a **Regulation**, which is a **law**, in opposite with a Directive witch must be adapted in each country.

- Each **country** is **responsible of its own data** and national structure, **and** responsible of **its enforcement**.

- The **European Commission does not store any national data**, only information for exchange tracking.

- A **common interface** for exchange **between the countries** must be defined and its use is mandatory.

- Technical **solutions exist** to include countries out.
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