DOITS

Working Group Meeting
Courtyard Marriot Amsterdam Airport
2017.04.04

Attendees:
David Ellis – Microlise
Fredrik Callenryd – Scania
Jan Unander – UNIC/Telematics Valley
Uwe Muench - Telogis
Jasper Pauwelssen – TomTom
Arie van den Jagt – Transics
Dirk Staelens - Transics
Ingmar Bengtsson – Volvo
Niclas Nygren – Volvo (Phone partially)

Objective
The meeting had the following action points:
1) Update on promotion of DOITS
2) Audit on implementation status at members companies
3) Discussions on Tacho data and proposed standardisation by ACEA
4) Proposals of next ECO driving related data and measures to harmonize
5) Possibilities to improve Truck and Trailer communications and discuss DOITS role
6) Open Platforms, Challenges and opportunities

1)   Update on promotion of DOITS

Jan presented the press activities that have been done since the meeting in October 2016.

A database, with a carefully selected 158 magazines and journalists specializing in logistics and road transportation, is built to be the platform for future communication on DOITS.

First activity is the press article that was distributed to all of you members in the DOITS working group. This press article has been sent to the journalists in the database with the following results:
- 45 of the 158 journalists have opened the mail and had a glimpse of the content
- 20 read the full article

A more comprehensive article is under production and is confirmed that it will be published in a Swedish transport magazine when ready.

Jan stressed the factor that to get articles published they have to be written in the local language where the magazine is based, if it is not an International magazine.

A discussion was taken on how members in the working group can support creating awareness of DOITS and the work we are doing.

Activity; We all have a LinkedIn accounts where we have access to important business relations. The point is not to send out information to everyone in your LinkedIn account but focus on those that probably have a special interest in what the working group in DOITS is doing. The message can either be one that you put together yourself or the one JU will write in English that can be used as it is or if you translate it to the local language.

It was agreed that what should be positioned in press as DOITS is a unique cross competition working group with a joint agreement to support the logistics industry through harmonization and improvement of critical operational data and information related to trucks (and trailers?).

2)   Implementing agreed DOITS Idling measures and new Data Bands in your solutions

No matter how much we in the DOITS working Group agree, no improvements will be perceived by the logistics industry if you as suppliers do not make the data and measures available in your solutions.

There is a perceived need by the working group´s members to create a higher awareness of DOITS within their own companies as a certain investment in time is required to complement the existing solutions to be able to deliver the harmonized Idling measure and the improved data-bands for rpm, speed, acceleration and retardation.

The ideal situation would be that the logistics companies start to ask for these harmonized measures but this end up in a "hen and egg" situation. If they don't know of the opportunity they will not ask for it. If they ask for it and you cant provide it and they find it important, they will look around for someone else that can deliver.

Daily priorities are tough in the members companies and meeting customers direct demands overrules most long term investments but we need to present what data is required and in what way to initially be able to compile the harmonized idling measure. Harmonized measures are long-term investments that will support the overall development of the industry and hard to present a short-term commercial business case on.

Action: Members in the working group confirmed at the meeting that the DOITS specification is close to what you can deliver today. All working group members have already received an excel sheet that could serve as a draft to an audit protocol or specification. You find it enclosed in the email with this report. To support the DOITS implementation, make an audit against existing solutions and define what is required to do to comply.

3) Complementing information to DOITS harmonised and improved data bands

The list of parameters where we so far have agreed on how to define are the ones listed in 1-5.

1.   idling

2.   acceleration bands

3.   retardation bands

4.   speed bands

5.   rpm bands

During the meeting it was pointed out that by also adding the parameters listed below (6-8), that already today can be collected and can be interpreted the same way, it will become a toolbox that all suppliers can use to offer a brand neutral DOITS ECO-driving driver behavior evaluation.

6.   Total Fuel

7.   Odometer (mileage) – from Tacho

8.   Fuel consumption (l/100 km)

There are probably more parameters that would add value and we will continue to identify, prioritize, evaluate and harmonize these.

Fuel consumption values from the OEMs have to be accepted as they are. As long as they are used as correct by all suppliers and not manipulated with own algorithms they can be used as DOITS confirmed parameters.

Action: When we package a DOITS ECO-driving evaluation "toolbox" it would gain from also including the parameters 6-8. JU will make a draft on how the DOITS ECO-driving evaluation package can be presented.

3)   **DOITS input to ACEA rFMS Tacho standardization process.**

Fredrik C presented the output from a HDEI Tacho File workshop at ACEA. The aim is initially to standardise the way to transfer data files from the Tacho, not specify what data that will be accessed (see enclosed ppt.).

This proposal will probably be ratified in June/ July 2017 and if DOITS want to influence the outcome we should come with our proposals to the rFMS standardisation group now.

The discussion in the DOITS working group on open tachograph data as part of the rFMS standard was that it would simplify for the logistics world. It would be less work for all suppliers of Fleet Management services on maintaining their solutions for different manufacturers and it would also open up the space for service development to use the data for other purposes than purely analytics and legal compliance.

A function that would increase the usability would be to enable a download request of data related to either a specific driver or a specific vehicle. This would normally be a part of the service offerings from the Fleet Management Solution providers to make sure that all data is downloaded but there are cases where an additional download might be of interest.

Here we might need to add a few constraints to avoid over consumption that could for example be:

·   legal compliancy, missing download from a legal perspective (defined by OEM)

·   missing data from a time perspective (last download older than X days?)

So the question is "Can the new Tacho rFMS standard include that a time stamped trigger can be set e.g. when the driver insert his ID card to identify driver or the truck VIN?"

Action1: JU will contact the project manager of the rFMS working group to see if we can get this proposal from the DOITS working group included as an addition to the new rFMS standard.

Action2: There is a need to get the Tacho-suppliers to agree on the positive effect of a harmonization of data to not cause even more proprietary solutions with different definitions of critical parameters like Idling etc. An initiative to set up a direct dialogue on these issues with the Tacho-suppliers Continental and Stoneridge was supported by all After Market Fleet Management Solution providers at the meeting.

Truck manufacturers in the DOITS working group consider the timing not being the best right now and are not prepared to participate in a discussion at this moment but see no hinders that the After Market Fleet Management Solution providers do this.

JU will contact Continental and Stoneridge to investigate their interest in a joint meeting between them and After Market Fleet Management Solution providers (Trimble, Transics, Microlise, TomTom

and Telogis). Members of the DOITS working group were asked to supply JU with names on individuals within Continental and Stoneridge that might be right to start talking to.

4)   Trailer/ Truck Communications

At the DOITS meeting in November 2016 it was suggested that DOITS working group should discuss the possibilities to improve the process of matching and confirming that right trailer is connected to the right truck. The benefits would be to support in the situation where the truck picks up the trailer to shorten the time and to ensure that the driver pick up the right trailer.

Key to accomplish this is that the truck and trailer can match their IDs before they are connected and verify when they are connected.

To get feedback before the meeting from the logistics industry on issues on challenges when matching truck and trailer ID s, interviews were made with:
- DFDS
- PNO
- DHL
- Kuhne & Nagel
- Trans Scandinavian carriers
- NTEX
- Cargorange
- Europe Flyer
- Gothenburg RoRo Terminal
- Logent (4PL)
- Andreassons Åkeri (transport company – with tractors only)
- Mattsons (transport company that own trailers)

Some feedback from the interviews of interest is:
- matching truck and trailer before pick up is very seldom a problem.
    - ports have systems for drivers to find trailers on numbered parking lots
    - in the harbours 98-99% probability to directly find the right trailer
    - if have their own trailers they keep good control of where they are
    - drivers have an app and the trailer GPS so they can find the right trailer
    - if logistic company have own depots, trailers are picked up by personnel on site and placed so driver can easily pick them up

- when is it a problem?
    - drivers leave trailers in the harbour late in the evening and just dump the trailer as there is no parking lot free where it is supposed to be
    - too few parking lots
    - the driver only go for checking licence plates on trailers
    - sometimes drivers only get the address to where the trailer is and that makes it hard to find the right trailer on a big trailer parking lot
    - if another transport company left trailer can mean spending hours looking
    - problems to and from, depends on location where trailer is left
    - mostly a problem for the forwarding agent

- other comments.
    - containers more of a problem than trailers
    - GPS on trailers do normally work but not always
    - short term leased trailers lack GPS

Summary: Yes there are sometimes problems when drivers are picking up trailers. These occasions are mostly not in the harbours. Logistics companies with own trailers seems to have little problems but forwarding agents have less control over the companies is in the supply chain and how they handle their trailer logistics. To only focus on matching truck and trailer before connected seems to be not as big problem as expected but is still a concern sometimes.

How to know in what transport unit the goods is?

During the interviews it came clear that there are problems to track the goods in real time to know with high precision where it is.

As modern trucks and many trailers have GPS, real time tracking of the goods is possible if a trustworthy IT-solution can connect goods to a specific transport unit (container, ship, truck, trailer).

In the ideal world international unique codes and numbers are used to connect the goods ID to the ID of the transport unit the good is carried in at a requested time stamp.

There are unique IDs that are more or less internationally accepted for each transport unit in the logistic chain:
- containers (BIC Code)
- ships (IMO number)
- trailers (ILU Codes, VIN numbers)
- trucks (VIN number)

These numbers are used but of practical reasons these system are unreliable as e.g. numbers on trailers are read on the outside of the unit and manually registered. A problem is that trailers can be dirty so numbers often can be hard to read and mistakes happen.

The ideal situation would be if there were an electronic way to exchange ID data between truck and trailer.

There are prerequisites to accomplish this.

Trailers

There is a compulsory trailer VIN number se following quote.

Commission Regulation (EU) No 19/2011

*"This Regulation lays down rules for the EC type-approval of the manufacturer's statutory plate * and for the vehicle identification number *. It forms part of the implementation of the "Regulation on the general safety of motor vehicles"*

Types of vehicles concerned

This Regulation applies to vehicles of category M, N and O, namely:

- *motor vehicles designed and built for the carriage of passengers and having at least four wheels;*
- *motor vehicles intended and built for the transportation of goods and having at least four wheels;*
- ***trailers (including semi-trailers).***

Requirements for the vehicle identification number (VIN)

The manufacturer must affix a VIN on each vehicle and ensure its traceability for 30 years. The VIN consists of:

- *the world manufacturer identifier (WMI);*
- *the vehicle descriptor (VDS);*
- *the vehicle indicator section (VIS).*

It must be affixed in an accessible position and be visible. It must be stamped so as not to disappear under normal conditions of use of the vehicle."

<u>Trucks</u>

All trucks have a VIN number that is unique.

So the prerequisites are there for matching of VIN numbers of trucks and trailers.

One challenge is that truck manufacturers do not make the VIN number available for third party actors and therefore it is difficult to build solutions using the VIN as truck identity.

The stakeholders that need to be involved in the initiative are:
- truck manufacturers
- after market Fleet Management Solutions suppliers in general
- after market Fleet Management Solutions suppliers that provide solutions to Knorr-Bremse, Haldex and Wabco).
- EBS suppliers - Knorr-Bremse, (Haldex) and Wabco
- trailer manufacturers?

SO HOW TO MAKE IT HAPPEN IF DOITS WANTS TO SUPPORT THE DEVELOPMENT?

To address the full supply chain including ships and containers is a too huge challenge. However, to improve the communication between truck and trailer is a task that the working group can play a vital role in.

One challenge that was noted at the meeting is that Truck Manufacturers do not give access to the VIN number in their trucks and that means that after market solutions providers cannot use that as identity of the vehicle in their solutions.

A question was raised if the VIN number from trucks could be delivered via rFMS and if so, the ACEA rFMS working group should be informed and proposed to bring this matter up in their next working group meeting.

Also it would be an advantage if some key logistic companies were involved as requirement setters as well as giving feedback on how to create business value.

A discussion was kept around what technical interface to use for transferring the matching data and the trailer connector (ISO 12098) and the CAN bus communication was considered to still be the best solution to assure that the data is correct.

There is often a question which unit is the master and which the slave in a system. When matching truck and trailer data this should not, for the benefits of all parties in the logistic chain, be an issue that prevents the development of a harmonized solution.

Before the meeting on April 4:th, JU talked to Knorr-Bremse that confirmed that they would attend at a meeting to discuss how the matching and verification process can be improved.

The development of the IoT world that includes wireless positioning and data capturing from big and small items will support the development of tracking transport units. It is always a question of timing until the penetration is high enough but as long as companies that rent out trailers own a huge amount of the trailers, (e.g. PNO* or TIP) the cost of fitting all trailers with tracking equipment is not considered commercially possible.
PNO was interviewed before the meeting and gave the comment.

Conclusion: By solving the exchange of VIN number data between truck and trailer a platform is created that can be used also, when penetration of GPS solutions on trailers is higher, to wireless match the truck and trailer in the pick up situation.

Action: JU will organize a joint meeting where representatives from the stakeholders above are invited to an initial discussion to:
> **- confirm the need**
> **- specify what is required**
> **- share thoughts on how to implement the solution**
> **- commit to participate and contribute to the initiative**
> **- DS and DE will support JU in technical aspects of understanding the trailer connector**

5)   Open Platforms

MAN RIO, Daimler – Fleet Board Store for Apps, Scania One, Volvo, Iveco, Renault, DAF

We will see that all truck manufacturers will offer platforms that will enable third party suppliers to offer services through the truck manufacturers platforms. The overall strategy is the same i.e. to use the vehicle as a communications hub that can offer other vendors access to data generated by the vehicle or from the truck manufacturers other services to enable the vendors to create their own offers. The wireless communication channel is also possible to get access to if preferred.

Some truck manufacturers also use the platforms to support their internal business cases i.e. the after market business as well as technical product development.

F. Callenryd from Scania presented their Scania One – see enclosure.

The discussion on Open Platforms was brief but a few reflections were made.

- generally the body builders should have interest in accessing the vehicles open platforms but that market is fragmented so it is hard to try to create a focus group as the demands vary that much
- a possible group to target are the tail lift manufacturers that are relatively few to identify and have quite similar needs
- refrigeration unit suppliers are only a handful and these should be interested in using parts of the data trucks (and trailers) can deliver via the open platform. A challenge is that they already have developed their own telematics solutions to control their equipment and might consider themselves having a more adapted platform.
- Scania will deliver data according to rFMS version 1.0 via their Scania One. That means that track&trace solutions can be built by using that channel.

No direct conclusion was made but the issue is really interesting and time will tell how the development of building strong branded open platforms will end. Who will get the most desired third part vendors on their platforms and how will the business models built.

Also other players in the logistic field claim they have platforms. Proprietary or open is to be seen?

Open platforms are just an opportunity for DOITS as they do not address the harmonization of data challenges, they don't solve them.

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Jan Unander
Moderator
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