

CEN/TC 278 PT1605

Webinar #1

Session 3

Generic "Position, Velocity and Time" (PVT)
information for C-ITS services

(14:00 – 14:15)

Hans-Joachim Fischer (Jesper Engdahl)

This session gives an overview on

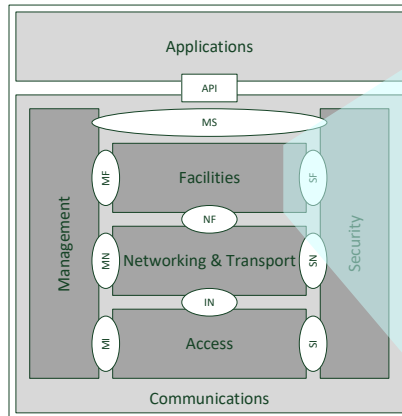
✓ TS 21176, *Cooperative intelligent transport systems (C-ITS) -- Position, velocity and time functionality in the ITS station.*

A more detailed presentation will be provided in a subsequent webinar.

Topics of this session:

1. Facilities in an ITS station – purpose of a PVT service
2. The PVT service – overall scope of TS 21176
3. Relation to other standards

Lead editor in PT1605 of TS 21176 is Mr. Jesper Engdahl. As he has a time conflict with another meeting, he cannot give the presentation himself.



ISO 21217

Communication Profile Handler (CPH)
ISO 17429

CAM / DENM
EN 302 637

Service Announcement
EN 22418

PVT Service
TS 21176

Local Dynamic Map (LDM)
EN 18750

Facilities Service Handler (FSH)
ISO 17429

Global Transport Data Management (GTDM)
TS 21184

Content Subscription Handler (CSH)
ISO 17429

➤ Purpose of a PVT service:

- ✓ Accurate and reliable kinematics information for any kind of ITS-S facility and ITS-S application.
- ✓ Key enabler of driver assistance and automated driving systems
- ✓ Sometimes essential for increasing the value of payment services

- Scope of TS 21176
 - ✓ Specifies a generic kinematics service (based on implementation-specific sensor fusion data source) providing the functionality of
 - PVTquery
 - PVTinfoSubscription
 - ✓ and how this PVT service can be accessed in an ITS station unit via the PVT Service Access Point (SAP) enabling portability of ITS-S applications:
 - Get-PVT.rq (pvtInfoOption) / Get-PVT.rs (pvtInfo)
 - Subscribe-PVT.rq (pvtInfoOption)
 - Notify-PVT.rq (pvtInfo)
 - Cancel-PVT.rq (subscriptionID)
 - ✓ provides an extendable (scalable) method to create sets of kinematics data with specific data formats (pvtInfo); (ASN.1 Information Object Class / Set);
 - ✓ presents examples of such sets for position, velocity, acceleration and time, including its associated quality, as being in use already;
 - ✓ specifies its usage as an ITS-S Capability (ISO 24102-6);
 - ✓ contains an implementation conformance statement template, which serves as a basis for conformity assessment.

TS 21176 references normatively

- ISO 21217 on
ITS station and communication architecture
- ETSI prEN 302 890-2 on
Facility Position and Time management (POTI)
- ETSI TS 102 894-2 on
Applications and facilities layer common data dictionary
- EN 16803-1 on
Use of GNSS-based positioning for road ITS – performance
- ISO 17575-1 on
EFC – Application interface for autonomous systems - charging
- EN 17423 / ISO 24102-6 related to
Communication profile selection
- ISO 17429 on
ITS station facilities

- **Session 1:** 13:10 – 13:25
C-ITS standardization landscape (TR 21186-1)
- **Session 2:** 13:25 – 14:00
Hybrid communications for C-ITS service deployment (TR 21186-2, TS 17496)
- **Session 3:** 14:00 – 14:15
Generic position, velocity and time information for C-ITS services (TS 21176)
- **Break:** 14:15 – 14:30
- **Session 4:** 14:30 – 15:15
Generic access to sensor and control data for C-ITS services (TS 21184)
- **Session 5:** 15:15 – 16:00
Cybersecurity for C-ITS services (TS 21177, TR 21186-3)
- Questions and discussions: 16:00 – 17:00

Subsequent webinars will present in more detail these technologies.

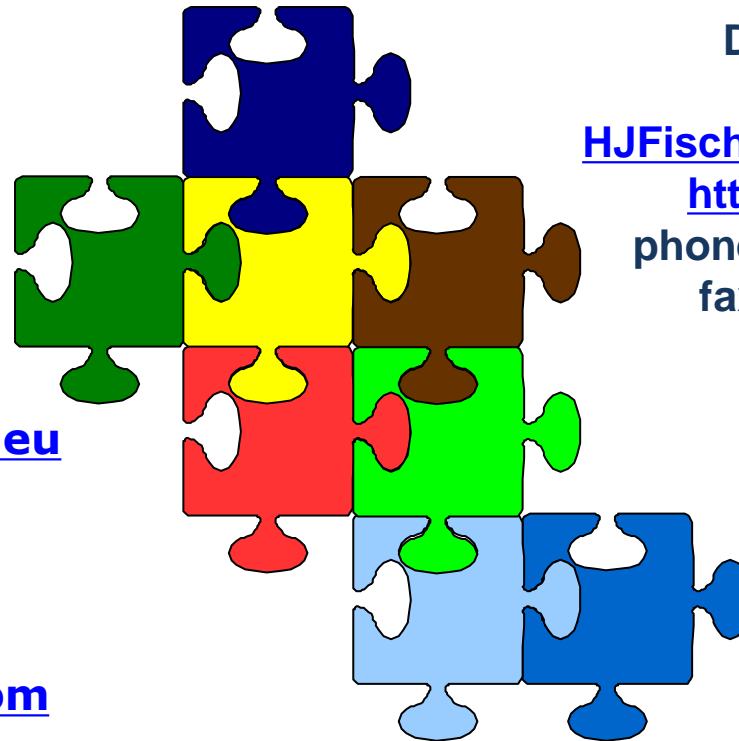
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<https://www.itsstandards.eu/cits/shc>

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