Technical Specification

ISO/TS 7815-2

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Intelligent transport systems — Telematics applications for regulated commercial freight vehicles (TARV) using ITS stations —

Part 2: Specification of the secure vehicle interface

Systèmes de transport intelligents — Cadre pour applications télématiques collaboratives pour véhicules de fret commercial réglementé (TARV) via les stations ITS —

Partie 2: Spécification de l'interface sécurisée du véhicule

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Foreword

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

A list of all parts in the ISO 7815 series can be found on the ISO website.

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Introduction

Many intelligent transport system (ITS) technologies have been embraced by commercial transport operators and freight owners in the areas of fleet management, safety and security. Telematics applications have also been developed for governmental use. Such regulatory services in use or under consideration vary from region to region, but include electronic on-board recorders, vehicle charging, digital tachograph, on-board mass monitoring, emissions monitoring, vehicle access monitoring, hazardous goods tracking and eCall. Additional applications with a regulatory impact currently under development include fatigue management, speed monitoring and heavy vehicle charging based on mass, location, distance and time.

In this emerging environment of regulatory and commercial applications, between 2008 and 2012, ISO 15638-1 was developed and approved, enabling on-board equipment and back-office systems to be commercially designed in an open market, meeting the common requirements of jurisdictions. The ISO 15638-1 architecture routes responses via an application service provider who validates the destination before providing the data.

While the TARV (telematics applications for regulated commercial freight vehicles) ISO 15638 series remains valid and appropriate in many cases, it is now appropriate to also enable the direct transfer of data using a secure interface. ISO/TS 7815-1 provides, within the TARV paradigm, the specification of the architecture and framework for the direct transfer of data using a “secure vehicle interface” within which these transactions can be undertaken, without the use of an application service provider as an intermediary.

The trust relation between two devices is illustrated in Figure 1. Two devices cooperate in a trusted way, i.e. exchange information with optional explicit bi-directional protection, in secure application sessions, thus only using access data or request data that it has the appropriate credentials for access.

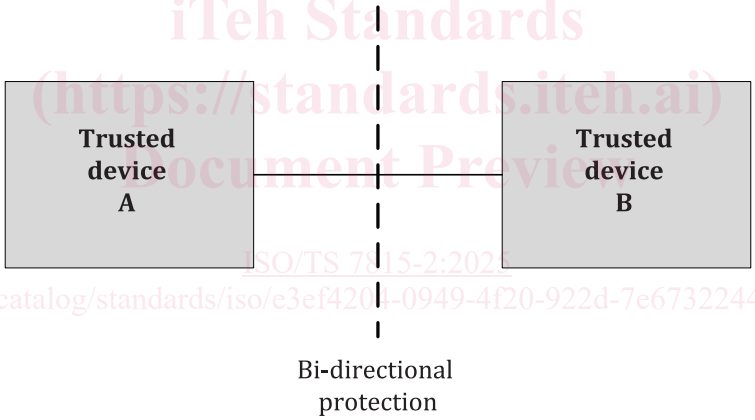

Figure 1 — Interconnection of trusted devices (ISO 21177)