International Standard

ISO 25110

Electronic fee collection — Interface definition for on-board account using an integrated circuit card (ICC)

Perception de télépéage — Définition d'interface pour compte embarqué utilisant une carte à circuit(s) intégré(s)

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Contents

Page

Foreword

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

This second edition cancels and replaces the first edition (ISO 25110:2017), which has been technically revised.

The main changes are as follows:

— Clause 3 has been updated and ISO 17573-2 has been made the primary source for terms and definitions;

— in Clause 6, a provision related to the EFC functions invoked by roadside equipment to instruct the on-board equipment has been changed from a recommendation to a requirement for conformance to ISO 14906.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 Background and motivation

Two payment systems currently exist for dealing with electronic fee collection (EFC):

1) the central account system, which uses a one-piece on-board unit (OBU), and

2) the on-board account system, which uses a payment media such as the integrated circuit card (ICC) inserted in an element of on-board equipment (OBE).

ICCs are widely used for public transport cards such as subway and bus payment means, and electronic money cards are used for general purpose payments, as well as for credit cards and banking cards. In the future, ICCs are expected to also be used for EFC payment means, providing convenience and flexibility; see Figure 1.

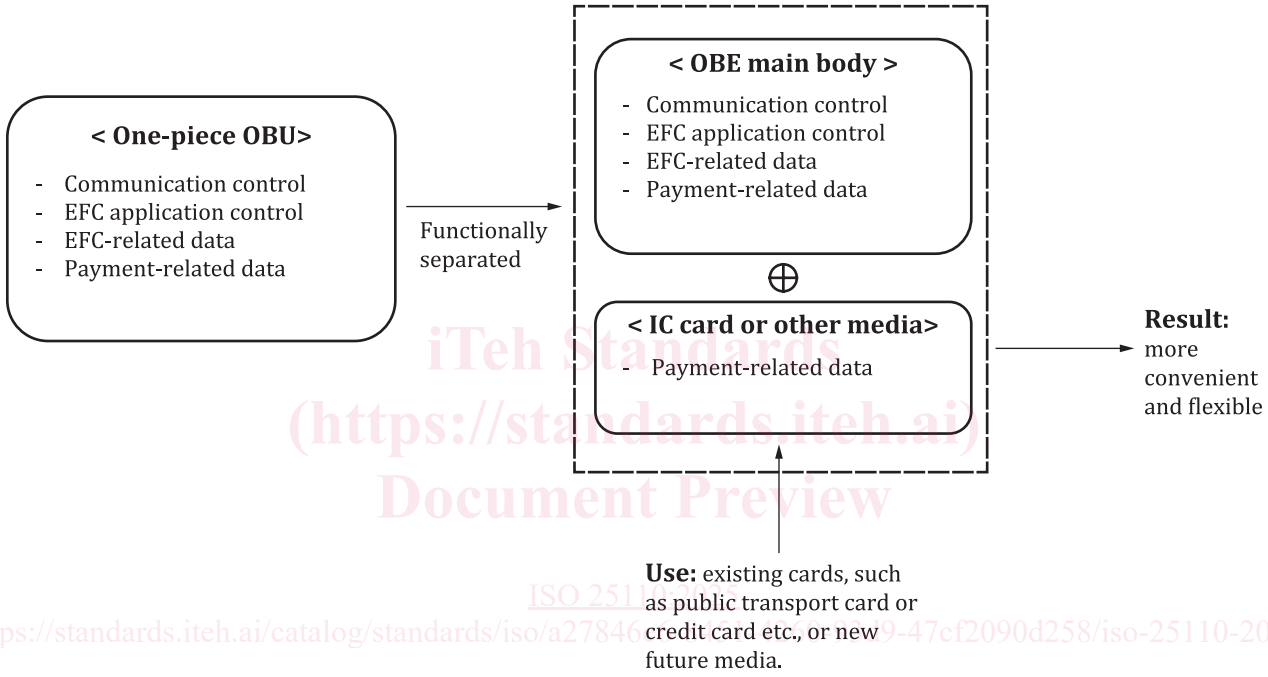

Figure 1 — Motivation for on-board accounts using ICCs

Currently, relevant descriptions in existing EFC-related standards are focused on the central account system, which is comparatively simple and gives more feasibility for EFC interoperability than the on-board account system, which is complex and has more items to be settled.

Figure 2 shows the basic model of EFC, in which the OBE is used as a communication means and the ICC carries the payment means.