INTERNATIONAL STANDARD

ISO 37165

First edition
2020-09

Smart community infrastructures — Guidance on smart transportation with the use of digitally processed payment (d-payment)

Infrastructures urbaines intelligentes — Recommandations pour le transport intelligent utilisant les paiements numériques

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Reference number
ISO 37165:2020(E)

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 268, *Sustainable cities and communities*, Subcommittee SC 1, *Smart community infrastructures*.

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Introduction

Each day a huge number of city residents and visitors use transportation services by paying fares for every ride in and between cities. Fast ticket processing for these customers is required in order to avoid congestion in ticket offices and at ticket vending machines. In some transportation services, operators do not sell tickets but request that customers pay the exact fare as no change is given. Payment of transportation fares is normally in local currencies, including hard currencies. International travellers have to pay their travel costs in such currencies after having exchanged money in advance. Credit cards are an option for payment but not all cards are accepted in some places, especially when paying small amounts.

Thus, easy procedures for the payment of precise amounts are indispensable in city life and business activities, including transportation rides. In transportation and its related or additional services, customers have to pay many kinds of fees besides transportation fares. They want to pay in their preferred ways, which can include a variety of options. Proper collection of fares or fees in an easy way assists the business of transportation and leads to sustainable local services for citizens, since the business is financially stabilized with reduced handling costs and the avoidance of fee receipt failure.

Digitally processed payment (d-payment) is a method of paying fees using a digital form of an existing and circulated currency, which works like common coins and paper bills. The sums of fares or fees collected in the services are extremely large, even though the amount paid by customers for each transaction is small. Therefore, the payment system requires high security, not necessarily just for the protection of customer payments but also to protect operators from, for example, theft by employees who directly handle and manage cash.

This document describes the concept of d-payment in transportation and its related or additional services, and its safe management and practical application thereof, which will be helpful to citizens and city visitors using such services and beneficial to the service operators.

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