PD ISO/TS 15143-3:2020

BSI Standards Publication

Earth-moving machinery and mobile road construction machinery — Worksite data exchange

Part 3: Telematics data

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National foreword

This Published Document is the UK implementation of ISO/TS 15143-3:2020. It supersedes PD ISO/TS 15143-3:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/513/1, Earth moving machinery (International).

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Earth-moving machinery and mobile road construction machinery — Worksite data exchange

Part 3: Telematics data

Engins de terrassement et machines mobiles de construction de routes — Échange de données sur le chantier —

Partie 3: Données télématiques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 3, *Machine characteristics, electrical and electronic systems, operation and maintenance*.

This second edition cancels and replaces the first edition (ISO/TS 15143-3:2016), which has been technically revised.

The main changes compared to the previous edition are as follows:

— addition of Annex E (normative) that specifies process for adding new data elements to ISO/TS 15143-3;

— editorial improvement of the text.

This document is intended to be used in conjunction with ISO 15143-1 and ISO 15143-2.

A list of all parts in the ISO 15143 series can be found on the ISO website.

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

This document is a data schema for data transmitted directly from the equipment manufacturer or provider to the equipment owner in a standardized format for the use and convenience of equipment owners with mixed fleets of equipment.

It defines a set of web services that provide information about fleets of mobile equipment and their associated telematics data. The information about a fleet is provided as a resource, typically on the Internet, at a known Uniform Resource Location (URL).

Customer application can access these resources by sending HTTPS GET requests to the server at the given location. The server responds with an equipment information document whose vocabulary is defined in this document.

ISO/TC 127/SC 3 wishes to acknowledge the Association of Equipment Manufacturers and the Association of Equipment Management Professionals for their contributions to prior work on this subject.

The goal of this document is to provide direct access by end users to their specific fleet data, and not to enable third parties for data aggregation across end users or other purposes. The use of this document enables each end user or assigned customer application developer to develop applications for purposes deemed appropriate by the end user.

Earth-moving machinery and mobile road construction machinery — Worksite data exchange —

Part 3: Telematics data

1 Scope

This document specifies the communication schema designed to provide mobile machinery status data from a telematics provider's server to customer applications via the Internet. The data is collected from a mobile machine using telematics data-logging equipment and stored on a telematics provider's server. This document describes the communications records used to request data from the server and the responses from the server containing specified data elements to be used in the analysis of machine performance and machine management status related with operation and/or maintenance.

It is applicable to self-propelled earth-moving machinery as defined in ISO 6165 and mobile road construction machinery as defined in ISO 22242 equipped with location and time instrumentation.

It is not applicable to the on-board data collection, on-board communication protocol (e.g. CANbus) or wireless transmission of the mobile machinery data to the telematics provider's server after the data have been collected at the data logger. See Figure 1.

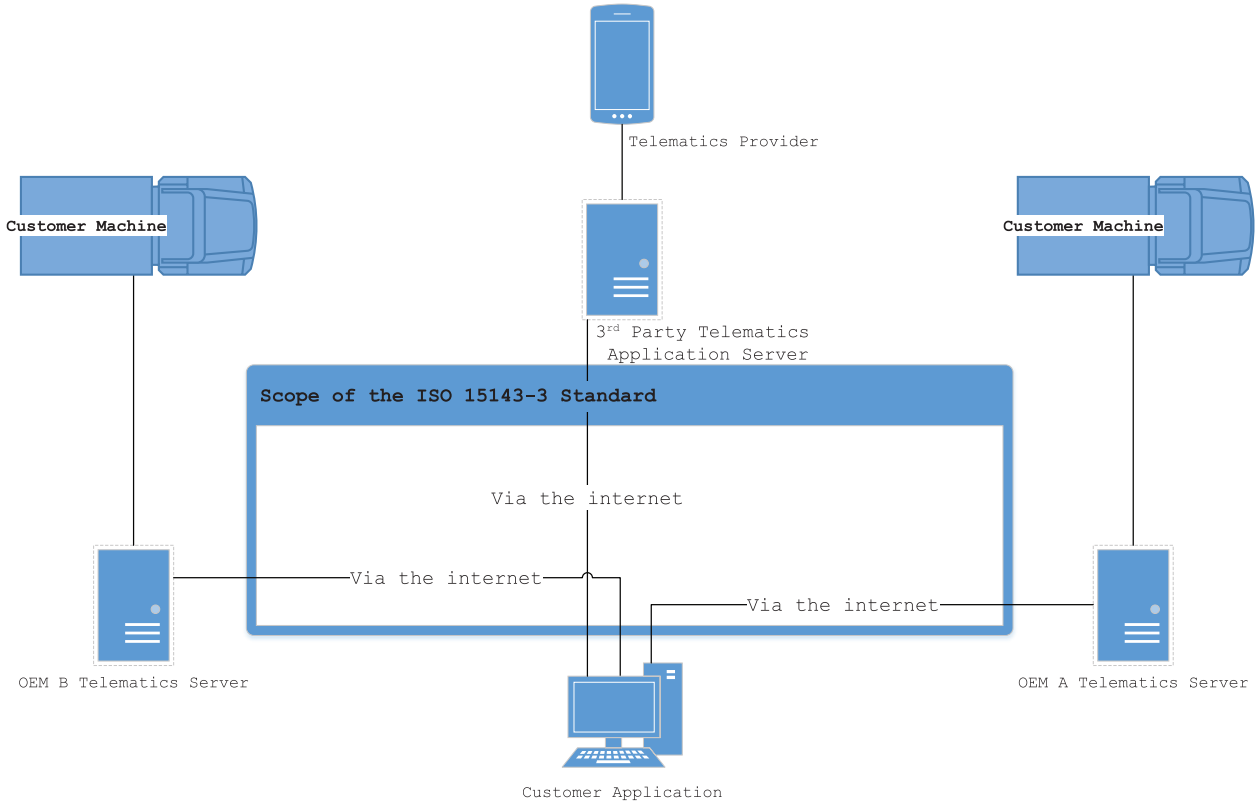

Figure 1 — Topography of conceptual mixed fleet telematics system within the scope of this document