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CONTENTS

INTERNET OF THINGS (IoT) – DATA EXCHANGE PLATFORM FOR IoT SERVICES –

Part 2: Transport interoperability between nodal points

FOREWORD

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ISO/IEC 30161-2 has been prepared by subcommittee 41: Internet of Things and Digital Twin, of ISO/IEC joint technical committee 1: Information technology. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
JTC1-SC41/326/FDIS	JTC1-SC41/336/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1, available at www.iec.ch/members_experts/refdocs.

A list of all parts in the ISO/IEC 30161 series, published under the general title *Internet of Things (IoT) – Data exchange platform for IoT services*, can be found on the IEC and ISO websites.

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INTRODUCTION

ISO/IEC 30161-1:2020 specifies the requirements of an Internet of Things (IoT) data exchange platform (IoT DEP), which transfers IoT data to and from various IoT devices with small delay. The IoT DEP provides the following functions: abstraction of communication networks and lightweight transfer of IoT traffic. However, ISO/IEC 30161-1:2020 specifies only the concept and structure of the platform for IoT data exchange between an IoT device and an IoT-user through an IoT DEP. Therefore, it is essential to take into account that IoT devices and IoT-users are connected to each other through multiple nodal points, when a large number of IoT devices and IoT-users is included in the IoT system and is deployed over a wide geographical area.

This document focuses on the transport interoperability among nodal points in an IoT system. The transport interoperability among nodal points enables data exchange among nodal points in an IoT system with small overheads or data acquisition with low latency. Requirements for efficient transfer of IoT data among nodal points are specified. Functional blocks on a nodal point for the transport interoperability between nodal points in the IoT DEP are specified.

The transport interoperability among nodal points is realized by an IoT DEP network consisting of multiple nodal points. The transfer of IoT data among nodal points is not affected by a communication protocol in the transport layer. A nodal point has routing function and forwarding function to realize the transport interoperability.

INTERNET OF THINGS (IoT) – DATA EXCHANGE PLATFORM FOR IoT SERVICES –

Part 2: Transport interoperability between nodal points

1 Scope

This part of ISO/IEC 30161 specifies the following items for the transport interoperability between nodal points in the IoT data exchange platform (IoT DEP):

– requirements;

– functional blocks;

– operation mechanism.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 30161-1:2020, *Internet of Things (IoT) – Data exchange platform for IoT services – Part 1: General requirements and architecture*