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Interested committees:

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



JTC1-SC41/248/CD

COMMITTEE DRAFT (CD)

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IEC ISO/IEC JTC 1/SC 41 : INTERNET OF THINGS AND DIGITAL TWIN

SECRETARIAT:

Korea, Republic of

SECRETARY:

Ms Jooran Lee

OF INTEREST TO THE FOLLOWING COMMITTEES:

PROPOSED HORIZONTAL STANDARD:



Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☐ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

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Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Internet of Things (IoT) – Data exchange platform for IoT services – Part 2: Transport interoperability between nodal points

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTERNET OF THINGS (IOT) –DATA EXCHANGE PLATFORM FOR IOT SERVICES – PART 2: TRANSPORT INTEROPERABILITY BETWEEN NODAL POINTS**FOREWORD**

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International Standard ISO/IEC 30161-2 has been prepared by subcommittee 41: Internet of Things and Digital Twin, of IEC technical committee JTC 1.

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

FDIS	Report on voting
XX/XX/FDIS	XX/XX/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The National Committees are requested to note that for this document the stability date is 20XX..

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INTRODUCTION

As shown by ISO/IEC 30161-1, IoT implements various services in many fields, e.g. "Remote Management of Large Equipment in a Plant", "Warehouse Goods Monitoring", "IoT Endpoint (Sensors and Actuators) Monitoring Systems". The IoT architecture can be categorized into vertical and horizontal approaches. For small deployments in limited areas, a vertical approach is appropriate. However, for large scale deployments, a horizontal approach is required, and the introduction of the concept of a common platform is helpful for implementing various services. In the horizontal approach, information processing and networking are positioned as platforms. Moreover, the types of IoT services are increasing in different application fields. To make IoT services more creative and productive, data exchange between various IoT services needs to be supported and a common platform for data exchange is the simplest way. ISO/IEC JTC 1/SC 41 has promoted specifications for the high-level architecture as the reference architecture of IoT systems. ISO/IEC 30161-1 specifies only the concept and structure of the platform for IoT data exchange.

When the number of connected IoT devices and IoT-users increase or the IoT system is deployed widely as a horizontal deployment, IoT devices and IoT-users are connected to each other through multiple nodal points. In ISO/IEC 30161-1, a nodal point is defined as a point for relaying IoT data according to the routing information decided by a communication protocol, and a communication entity in the IoT DEP network, which is any of an access network, a service network, or a user network. To provide data exchange among nodal points in an IoT system with small overheads or acquiring data with low latency, this document focuses on the transport interoperability for efficient transfer of IoT data among nodal points in an IoT system.