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FOREWORD

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ISO/IEC 30187 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-SC41/584/FDIS	JTC1-SC41/602/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, and the ISO/IEC Directives, JTC 1 Supplement available at www.iec.ch/members_experts/refdocs and www.iso.org/directives.

INTRODUCTION

System evaluation is a method used to review and select newly developed or rebuilt systems through systematic analysis, considering aspects such as technology, economy, society, and ecology. The system evaluation is carried out according to predetermined system objectives. The purpose is to evaluate the most suitable solution for the application or use case.

An IoT system evaluation usually includes the following steps:

– defining the system of interest and the associated environment,
– reviewing existing relevant standards to set appropriate minimum requirements,
– determining the evaluation items and the resulting list of indicators,
– determining the observable items and collecting relevant information,
– determining the methods and criteria for evaluation, and
– conducting the evaluation.

The conclusion of the evaluation indicator scheme is the basis of the system evaluation process, which can provide evaluation criteria for the objective IoT systems.

IoT systems are being widely used in energy, agriculture, manufacturing, finance, environmental protection and other industries. To identify the advantages and disadvantages among IoT systems, it is important to develop a standard to help users to select appropriate indicators when evaluating the performance of targeted systems.

The set of evaluation indicators described in this document can be considered as a profile, which can be used for the evaluation of IoT systems in the planning phase, the real-time monitoring phase, or the phase after deployment. The specification of other profiles depends on the system that is evaluated. For instance, if an IoT system includes artificial intelligence or digital twin capabilities, additional indicators can be added. Likewise, if an IoT system corresponds to a vertical domain (e.g. health, manufacturing, energy), additional indicators can be added.

1 Scope

This document specifies the evaluation indicators for IoT systems.

This document is applicable to the compilation of the evaluation indicators for IoT systems in specific industries.

NOTE The indicators identified in this document are typical indicators but are not a comprehensive list; and conversely, not every indicator listed applies to every IoT system.

2 Normative references

There are no normative references in this document.

Bibliography

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