

INTERNATIONAL STANDARD

Internet of things (IoT) – Vocabulary

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INTERNET OF THINGS (IoT) – VOCABULARY

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International Standard ISO/IEC 20924 has been prepared by subcommittee 41: Internet of Things and related technologies, of ISO/IEC joint technical committee 1: Information technology.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

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

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

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INTERNET OF THINGS (IoT) – VOCABULARY

1 Scope

This document provides a definition of Internet of Things along with a set of terms and definitions. This document is a terminology foundation for the Internet of Things.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 General terms

3.1.1 address

<endpoint> value that can be used to identify an endpoint, which can designate the originating source or destination of data being transmitted

3.1.2 application

software designed to fulfil a particular purpose

[SOURCE: ISO/IEC 24713-2:2008, 4.1, modified – “program or piece of” has been removed from the beginning of the definition.]

3.1.3 architecture

<system> set of fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution

[SOURCE: ISO/IEC/IEEE 42010:2011, 3.2, modified – “set of” has been added to the beginning of the definition.]

3.1.4 asset

physical entity or digital entity that has value to an individual, an organization or a government

[SOURCE: ISO/IEC 27032:2012, 4.6, modified – “anything” has been replaced by “physical entity or digital entity” at the beginning of the definition.]

3.1.5 availability

property of being accessible and usable upon demand by an authorized entity

Note 1 to entry: IoT systems can include both human users and service components as “authorized entities”.

[SOURCE: ISO/IEC 27000:2018, 3.7]

3.1.6**characteristic**

abstraction of a property of an entity or of a set of entities

[SOURCE: ISO 18104:2014, 3.1.4]

3.1.7**cloud computing**

paradigm for enabling network access to a scalable and elastic pool of shareable physical or virtual resources with self-service provisioning and administration on-demand

[SOURCE: ISO/IEC 17788:2014, 3.2.5]

3.1.8**cloud service**

one or more capabilities offered via cloud computing invoked using a defined interface

[SOURCE: ISO/IEC 17788:2014, 3.2.8]

3.1.9**cloud service provider**

party which makes cloud services available

[SOURCE: ISO/IEC 17788:2014, 3.2.15]

3.1.10**compliance**

characteristic of conformance to rules, such as those defined by a law, a regulation, a standard, or a policy

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3.1.11**component**

modular, deployable, and replaceable part of a system that encapsulates implementation and exposes a set of interfaces

[SOURCE: ISO 14813-5:2010, B.1.31]

3.1.12**confidentiality**

property that information is not made available or disclosed to unauthorized individuals, entities, or processes

[SOURCE: ISO/IEC 27000:2018, 3.10]

3.1.13**data store**

persistent repository for digital information

Note 1 to entry: A data store can be accessed by a single entity or shared by multiple entities via a network or other connection.

3.1.14**digital entity**

computational and/or data element

Note 1 to entry: A digital entity can exist as a cloud service or as a service in a data centre, or as a network element or as an IoT gateway.

3.1.15**digital user**

digital entity that uses an IoT system

Note 1 to entry: digital user includes automation services that act on behalf of human users.

3.1.16**discovery service**

service to find unknown resources, entities or services based on a specification of the desired target

Note 1 to entry: Discovery service can be used by a human user or a digital user.

3.1.17**endpoint**

component that exposes or uses one or more network interfaces

3.1.18**entity**

thing (physical or non-physical) having a distinct existence

[SOURCE: ISO/IEC 15459-3:2014, 3.1]

3.1.19**functional component**

functional building block needed to engage in an activity, backed by an implementation

Note 1 to entry: See also "component", which is a superset containing all functional components and other types of component that are deployable.

[SOURCE: ISO/IEC 17789:2014, 3.2.3 modified – Note 1 to entry has been added.]

3.1.20**human user**

natural person who uses a system

3.1.21**identifier**

information that unambiguously distinguishes one entity from other entities in a given identity context

3.1.22**identity context**

environment where an entity can use a set of attributes for identification

3.1.23**interface**

shared boundary between two functional components, defined by various characteristics pertaining to the functions, physical interconnections, signal exchanges, and other characteristics, as appropriate

[SOURCE: ISO/IEC 13066-1:2011, 2.15, modified – In the definition, "units" has been replaced by "components".]

3.1.24**interoperability**

ability of two or more systems or applications to exchange information and to mutually use the information that has been exchanged