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Information technology — Cloud computing —

Part 1:
Vocabulary

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Partie 1: Vocabulaire

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Foreword

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 38, *Cloud computing and distributed platforms*.

A list of all parts in the ISO/IEC 22123 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 the definitive reference for cloud computing, providing a consolidated cloud computing vocabulary consisting of terms, terminology and definitions.

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Information technology — Cloud computing —

Part 1:
Vocabulary

1 Scope

This document provides terms and definitions for vocabulary used in the field of cloud computing.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

3.1 General

For the purposes of this document, the following terms and definitions apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.2 Terms related to cloud computing foundation

3.2.1
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

Note 1 to entry: Examples of resources include servers, operating systems, networks, software, applications, and storage equipment.

3.2.2
cloud service
one or more capabilities offered via *cloud computing* (3.2.1) invoked using a defined interface

3.3 Terms related to cloud deployment models

3.3.1
cloud deployment model
way in which *cloud computing* (3.2.1) can be organized based on the control and sharing of physical or virtual resources

Note 1 to entry: The *cloud deployment models* include *community cloud* (3.3.2), *hybrid cloud* (3.3.3), *private cloud* (3.3.4) and *public cloud* (3.3.5).

1

3.3.2
community cloud
cloud deployment model ([3.3.1](#)) where *cloud services* ([3.2.2](#)) exclusively support and are shared by a specific collection of *cloud service customers* ([3.4.2](#)) who have shared requirements and a relationship with one another, and where resources are controlled by at least one member of this collection

3.3.3
hybrid cloud
cloud deployment model ([3.3.1](#)) using at least two different *cloud deployment models* ([3.3.1](#))

3.3.4
private cloud
cloud deployment model ([3.3.1](#)) where *cloud services* ([3.2.2](#)) are used exclusively by a single *cloud service customer* ([3.4.2](#)) and resources are controlled by that *cloud service customer* ([3.4.2](#))

3.3.5
public cloud
cloud deployment model ([3.3.1](#)) where *cloud services* ([3.2.2](#)) are potentially available to any *cloud service customer* ([3.4.2](#)) and resources are controlled by the *cloud service provider* ([3.4.3](#))

3.4   Terms related to cloud computing roles and activities

3.4.1
party
natural person or legal person, whether or not incorporated, or a group of either that can assume one or more *roles* ([3.4.11](#))

3.4.2
cloud service customer
CSC
party ([3.4.1](#)) which is in a business relationship for the purpose of using *cloud services* ([3.2.2](#))

Note 1 to entry: A business relationship does not necessarily imply financial agreements.

3.4.3
cloud service provider
CSP
party ([3.4.1](#)) which makes *cloud services* ([3.2.2](#)) available

3.4.4
cloud service user
CSU
natural person, or entity acting on their behalf, associated with a *cloud service customer* ([3.4.2](#)) that uses *cloud services* ([3.2.2](#))

Note 1 to entry: Examples of such entities include *devices* ([3.14.4](#)) and applications.

3.4.5
cloud service partner
CSN
party ([3.4.1](#)) which is engaged in support of, or auxiliary to, *activities* ([3.4.8](#)) of either the *cloud service provider* ([3.4.3](#)) or the *cloud service customer* ([3.4.2](#)), or both

3.4.6
cloud auditor
cloud service partner ([3.4.5](#)) with the responsibility to conduct an *audit* ([3.14.10](#)) of the provision and use of *cloud services* ([3.2.2](#))

3.4.7
cloud service broker
cloud service partner (3.4.5) that negotiates relationships between *cloud service customers* (3.4.2) and *cloud service providers* (3.4.3)

3.4.8
activity
specified pursuit or set of tasks

3.4.9
peer cloud service provider
secondary cloud service provider
cloud service provider (3.4.3) who provides one or more *cloud services* (3.2.2) for use by one or more other *cloud service providers* (3.4.3) as part of their *cloud services* (3.2.2)

3.4.10
functional component
functional building block needed to engage in an *activity* (3.4.8), backed by an implementation

3.4.11
role
set of *activities* (3.4.8) that serves a common purpose

3.4.12
sub-role
subset of the *activities* (3.4.8) of a given *role* (3.4.11)

3.4.13
device platform cloud service
cloud service (3.2.2) offered by the *device platform provider* (3.14.13) to support the *device platform* (3.14.5)

Note 1 to entry: An *application marketplace* (3.14.6) can be an example of *device platform* (3.14.5) *cloud service* (3.2.2).

3.4.14
cloud service developer
cloud service partner (3.4.5) with the responsibility for designing, developing, testing and maintaining the implementation of a *cloud service* (3.2.2)

3.5 Terms related to key cloud computing characteristics

3.5.1
measured service
metered delivery of *cloud services* (3.2.2) such that usage can be monitored, controlled, reported and billed

3.5.2
tenant
one or more *cloud service users* (3.4.4) sharing access to a set of physical and virtual resources

3.5.3
multi-tenancy
allocation of physical or virtual resources such that multiple *tenants* (3.5.2) and their computations and data are isolated from and inaccessible to one another

3.5.4
on-demand self-service
feature where a *cloud service customer* (3.4.2) can provision computing capabilities, as needed, automatically or with minimal interaction with the *cloud service provider* (3.4.3)

3.5.5
resource pooling
aggregation of a *cloud service provider's* ([3.4.3](#)) physical or virtual resources to serve one or more *cloud service customers* ([3.4.2](#))

3.6 Terms related to cloud capabilities types and cloud service categories

3.6.1
cloud capabilities type
classification of the functionality provided by a *cloud service* ([3.2.2](#)) to the *cloud service customer* ([3.4.2](#)), based on resources used

Note 1 to entry: The *cloud capabilities types* are *application capabilities type* ([3.6.2](#)), *infrastructure capabilities type* ([3.6.3](#)) and *platform capabilities type* ([3.6.4](#)).

3.6.2
application capabilities type
cloud capabilities type ([3.6.1](#)) in which the *cloud service customer* ([3.4.2](#)) can use the *cloud service provider's* ([3.4.3](#)) applications

3.6.3
infrastructure capabilities type
cloud capabilities type ([3.6.1](#)) in which the *cloud service customer* ([3.4.2](#)) can provision and use processing, storage or networking resources

3.6.4
platform capabilities type
cloud capabilities type ([3.6.1](#)) in which the *cloud service customer* ([3.4.2](#)) can deploy, manage and run customer-created or customer-acquired applications using one or more programming languages and one or more execution environments supported by the *cloud service provider* ([3.4.3](#))

3.6.5
cloud service category
group of *cloud services* ([3.2.2](#)) that possess some common set of qualities

Note 1 to entry: A *cloud service category* can include capabilities from one or more *cloud capabilities types* ([3.6.1](#)).

3.6.6
communications as a service
CaaS
cloud service category ([3.6.5](#)) in which the capability provided to the *cloud service customer* ([3.4.2](#)) is real time interaction and collaboration

Note 1 to entry: *CaaS* can provide both *application capabilities type* ([3.6.2](#)) and *platform capabilities type* ([3.6.4](#)).

3.6.7
compute as a service
CompaaS
cloud service category ([3.6.5](#)) in which the capabilities provided to the *cloud service customer* ([3.4.2](#)) are the provision and use of processing resources needed to deploy and run software

Note 1 to entry: To run some software, capabilities other than processing resources may be needed.

3.6.8
data storage as a service
DSaaS
cloud service category ([3.6.5](#)) in which the capability provided to the *cloud service customer* ([3.4.2](#)) is the provision and use of data storage and related capabilities

Note 1 to entry: *DSaaS* can provide any of the three *cloud capabilities types* ([3.6.1](#)).