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**Information technology — Cloud  
computing —**

**Part 2:  
Concepts**

*Technologies de l'information — Informatique en nuage —  
Partie 2: Concepts*

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Published in Switzerland

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

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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*.

This first edition of ISO/IEC 22123-2, together with ISO/IEC 22123-1 cancels and replaces ISO/IEC 17788:2014, which has been technically revised.

The main changes are as follows:

- cloud computing terminology has been moved to ISO/IEC 22123-1;
- the descriptions of the key characteristics have been expanded;
- the number and descriptions of the cloud service categories have been expanded;
- the cloud deployment model descriptions have been expanded and corrected;
- added differentiation between cloud computing parties and role;
- the descriptions of the cross-cutting aspects have been expanded;
- a new [Clause 8](#) was added to address data and cloud services concepts;
- a new [Clause 9](#) was added to address virtualization concepts;
- a new [Clause 10](#) was added to address considerations when using multiple CSPs;
- a new [Clause 11](#) was added to address logical and physical organization of cloud computing;
- [Annex A](#) was expanded to identify additional cloud service categories, not described in this document.

A list of all parts in the ISO/IEC 22123 series can be found on the ISO and IEC websites.

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](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

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# Information technology — Cloud computing —

## Part 2: Concepts

### 1 Scope

This document specifies concepts used in the field of cloud computing. These concepts expand upon the cloud computing vocabulary defined in ISO/IEC 22123-1 and provide a foundation for other documents that are associated with cloud computing.

This document also provides detailed descriptions on the application of these concepts in cloud computing.

### 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 22123-1, *Information technology — Cloud computing — Part 1: Vocabulary*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 22123-1 and the following apply.

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

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

#### 3.1

##### **PII principal**

natural person to whom the personally identifiable information (PII) relates

Note 1 to entry: Depending on the jurisdiction and the particular data protection and privacy legislation, the synonym “data subject” can also be used instead of the term “PII principal.”

[SOURCE: ISO/IEC 29100:2011, 2.11]

#### 3.2

##### **PII controller**

privacy stakeholder (or privacy stakeholders) that determines the purposes and means for processing personally identifiable information (PII) other than natural persons who use data for personal purposes

Note 1 to entry: A *PII controller* sometimes instructs others [e.g. *PII processors* (3.3)] to process PII on its behalf while the responsibility for the processing remains with the *PII controller*.

[SOURCE: ISO/IEC 29100:2011, 2.10]