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Information technology — Cloud computing and distributed platforms — Taxonomy for digital platforms

Technologies de l'information — Informatique en nuage et platesformes distribuées — Taxonomie pour les plates-formes numériques



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Foreword

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Introduction

Technologies such as cloud computing are supporting the evolution of digital business and accelerating the shift to living and working (in part) online, in ways that would have been impossible a few years ago.

Increased debate about socio-technical developments always runs the risk of multi-disciplinary terminological confusion, due to the potential for the same word to be used for two or more distinct concepts. Moreover, polysemy (the capacity for a word or phrase to have multiple related meanings) is an attribute of many words. Any attempt to provide a single definition for a polysemic word needs to be sufficiently broad to account for all potential meanings.

Terms with alternative meanings in economic, societal, political, regulatory and technical contexts are being labelled with the same or similar names.

Adding clarity on concepts and definitions can assist in the formulation of well-informed policies in important areas such as security, privacy and governance. One of the terms that has been at the forefront of these changes is "platform".

Note that the economic, societal, political, regulatory and technical uses of the word "platform" predate cloud computing by many years.

Taxonomic structures serve many purposes and their topological structure, incorporation (or not) of orthogonal dimensions, levels of refinement, and the decision about the order and approach in which to apply the structuring factors lead to very different outcomes. The terminology and concepts presented in this document can be combined in different ways, depending on the problem being considered, and the factors that potentially influence the decisions driving such structuring are presented with the related concepts.

In a situation where two or more distinct interpretations of the word "platform" are relevant, but only one is taken into account, or where collaborators used two distinct interpretations at cross-purposes, confusion can arise.

Therefore, it is important to understand the difference between the technical, economic and general uses of the word platform in the context of digital services.

The audience for this document is technologists, economists, policy makers, social scientists and others who wish to precisely and unambiguously use these terms (e.g. in multi-disciplinary conversations).

Information technology — Cloud computing and distributed platforms — Taxonomy for digital platforms

1 Scope

This document specifies a taxonomy related to digital platforms, by providing definitions and supporting information that disambiguates different uses of the term platform as it applies to digital services (such as cloud computing and other distributed computing systems).

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

ISO/IEC TS 23167, Information technology — Cloud computing — Common technologies and techniques