TECHNICAL REPORT

ISO/IEC TR 23613

First edition
2020-05

Information technology — Cloud computing — Cloud service metering elements and billing modes

Reference number
ISO/IEC TR 23613:2020(E)

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Published in Switzerland

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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*.

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

As the adoption of cloud computing expands and the market grows, cloud service providers (CSPs) offer many different cloud services that can be classified as infrastructure, platform or application capabilities types. CSPs, in designing solutions to meet the needs of cloud service customers (CSCs), put together diverse metering elements and billing modes that complement the cloud services offered to cloud service customers (CSCs). It is challenging for CSCs to determine the differences among many diverse metering elements and billing modes from various CSPs as they navigate their journey to adopt cloud computing.

Measured service is one of the key characteristics of cloud computing (ISO/IEC 17788). The characteristic is that usage is monitored, controlled, reported, and billed for the delivered cloud service. To this end, it is necessary that usage can be monitored, controlled, reported, and billed for the delivered cloud service. Metering elements can be classified according to its cloud capabilities type. Transparent and scientific metering and billing results can be easily achieved if common operation practices apply.

The purpose of this document is to provide basic clarity and guidance through a sample set of cloud service metering elements and billing modes for different cloud capabilities types. Clause 5 includes a discussion of the billing functional component, of which metering is a major sub-component. Clause 6 introduces a sample set of metering elements. These examples can help a CSP better describe its billing and metering practices and can help CSCs to better understand the metering and billing of their cloud services in order to make informed decisions. Clause 7 explores some baseline guidance on cloud service metering and billing.

Information technology — Cloud computing — Cloud service metering elements and billing modes

1 Scope

This document describes a sample set of cloud service metering elements and billing modes.

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 17788, *Information technology — Cloud computing — Overview and vocabulary*

ISO/IEC 17789, *Information technology — Cloud computing — Reference architecture*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 17788, ISO/IEC 17789 and the following 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/

3.1
metering unit
unit of measure for a *metering element* (3.2)

3.2
metering element
characteristic of a cloud service that is subject to being metered

4 Abbreviated terms

API	Application Programming Interface
CSP	Cloud Service Provider
CSC	Cloud Service Customer
CPU	Central Processing Unit
IOPS	Input/Output Operations Per Second
IP	Internet Protocol
QoS	Quality of Service
SLA	Service Level Agreement