



**International
Standard**

ISO/IEC 23167

**Information technology — Cloud
computing — Common technologies
and techniques**

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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*.

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Introduction

Cloud computing is described at a high, conceptual level in the foundational standards ISO/IEC 22123-1, ISO/IEC 22123-2^[1] and ISO/IEC 22123-3^[2].

However, as the use of cloud computing has developed, a set of commonly used technologies has emerged to support, simplify and extend the use of cloud computing alongside sets of commonly used techniques which enable the effective exploitation of the capabilities of cloud services. Many of these common technologies and techniques are aimed at developers and operations staff, increasingly linked together in a unified approach called DevOps (see [10.2](#)). The aim is to speed and simplify the creation and operation of solutions based on the use of cloud services.

This document describes common technologies and techniques in cloud computing and their relationships. It also specifies how these are applied by roles associated with cloud computing.

This document addresses areas that are still developing in the industry and will be of primary interest to service developers in cloud service providers.

Information technology — Cloud computing — Common technologies and techniques

1 Scope

This document provides a description of a set of common technologies and techniques used in conjunction with cloud computing. These include:

- virtual machines (VMs) and hypervisors;
- containers and container management systems (CMSs);
- serverless computing;
- microservices architecture;
- automation;
- platform as a service systems and architecture;
- storage services;
- security, scalability and networking as applied to the above cloud computing technologies.

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 TS 5928, *Information technology — Cloud computing and distributed platforms — Taxonomy for digital platforms*

ISO/IEC TS 7339:2024, *Information technology — Cloud computing — Overview of platform capabilities type and platform as a service*

ISO/IEC 22123-1:2023, *Information technology — Cloud computing — Part 1: Vocabulary*

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