ISO/IEC ~~TS~~DTS 10866:~~####(X)~~

ISO/IEC JTC 1/SC 38~~/WG 5~~

Secretariat: ANSI

Date: 2024-~~04-16~~06-18

Information technology — Cloud computing and distributed platforms — Framework and concepts for organizational autonomy and digital sovereignty

~~DTS~~FDIS stage

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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.

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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 and www.iec.ch/national-committeeswww.iso.org/members.html and www.iec.ch/national-committees.

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Introduction

Organizational autonomy and digital sovereignty are important, complex and evolving subject areas whose implications have expanded in recent years, as organizations of all types address the challenges inherent to supplying and procuring digital capabilities in evolving environments.

Government objectives and policies can often be addressed through public/ or private partnerships, as nationsthese governments increasingly rely on industry to help address these goals to increase their prosperity while maintaining an appropriate degree of control and independence.

Since the same issues of independence and freedom of action and choice also apply to organizations – including private, public sector and not-for-profit – theit is possible that such organizations may alsowill need to consider their own independence necessary to achieve their goals. Throughout this document, this is referred to as "organizational autonomy" or merely "autonomy" to distinguish it from national and political perspectives.

This document defines a framework for understanding and evaluating the implications of digital sovereignty requirements and restrictions on the organization— and. It describes how the organization can configure its digital platform to appropriately balance those requirements with its own need for organizational autonomy to achieve its goals. The framework may be used by the organization itself, or by the policy makers and regulators of a sovereign entity which desire to examine the consequences of proposed digital sovereignty requirements and restrictions on organizations and industries.

Audience:
1. The audience of this document includes:

1) Organizational leaders (e.g., Chief Information Officer, Chief Data Officer and Chief Compliance Officer), business or technical decision makers and digital platform architects who configure the organization's digital platform to ensure it has the right balance of digital autonomy to support and enable the goals of the organization to be achieved.
2.

2) Policy makers and regulators who wish to understand the impact of digital sovereignty and autonomy matters.

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~~Title:~~ Information technology – — Cloud computing and distributed platforms — Framework and concepts for organizational autonomy and digital sovereignty

1 Scope

This document specifies concepts related to the intersection of digital sovereignty, organizational autonomy, and digital platform, and provides a framework enabling organizations to address these concepts.

This document is applicable to all organizations and policy makers involved in organizational autonomy and digital sovereignty in cloud services and distributed platforms.

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/~~https://www.electropedia.org/

3.1
organization
person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

~~Note 2 to entry: If the organization is part of a larger entity, the term "organization" refers only to the part of the larger entity that is within the scope of the XXX management system.~~
[SOURCE: ISO/IEC 27000:2018, 3.50~~, modified – Note 2 to entry has been added.~~]

3.2
digital capability
~~IT (3.5)~~*information technology* (3.5) for enabling or supporting a service, product or process of the *organization* (3.1)

[SOURCE: ISO/IEC 38500:2024, 3.10]

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3.3
digital service
service offered by one party to another party by means of digital hardware or software technology, or both, including communication over a network

Note 1 to entry: In the context of this document, a service comprises one or more digital capabilities such as a cloud computing, edge computing, or some other distributed computing capability. Such a service will be subject to contract and typically have defined qualities of service, terms, and conditions for use.

Note 2 to entry: Cloud service, edge service, network service, broadcast service, and mobile service are all types of digital service. Not all types are discussed in this document.

[SOURCE: ISO/IEC TS 5928:2023, 3.1.1]

3.4
digital platform
set of correlated and cohesive *digital services* ~~(3.1.1)~~(3.3)

Note 1 to entry: A digital platform as described in this document enables and assists other participant digital services in conducting business with their customers, either by creating and facilitating a multi-sided market for those services, or by enabling the technological creation and operation of those services, or both.

Note 2 to entry: "Distributed platform" is often used as a synonym to ~~emphasise~~emphasize those elements of a digital service, such as edge computing and mobile computing that go beyond the classical datacentres of cloud computing.

[SOURCE: ISO/IEC TS 5928:2023, 3.1.2]

3.5
information technology
IT
resources used to acquire, process, store and disseminate information or data

Note 1 to entry: Resources can include computer or communication equipment, sensors, software, cloud computing and other software-based services

[SOURCE: ISO/IEC 38500:2024, 3.5]

3.6
organizational autonomy

ability of an organization to make decisions independently of external influences

Note 1 to entry: Organizational autonomy is limited by factors such as resources and stakeholder requirements.

4 Organizational autonomy and digital sovereignty

4.1 Overview

Organizational autonomy and digital sovereignty are important and complex subject areas which have expanded in recent years, as organizations of all types address the challenges inherent to supplying and procuring digital capabilities in an environment of globally available cloud services, rapid technology

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