Technical Specification

ISO/IEC TS 38508

First edition
2024-02

Information technology — Governance of IT — Governance implications of the use of a shared digital service platform among ecosystem organizations

Technologies de l'information — Gouvernance des technologies de l'information — Implications de gouvernance de l'utilisation d'une plateforme mutualisée de services numériques dans les organisations d'un écosystème

Reference number
ISO/IEC TS 38508:2024(en)

© ISO/IEC 2024

COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Overview of shared digital service platform among ecosystem organizations ... **2**
4.1 The purpose of a shared digital service platform among ecosystem organizations ... 2
4.2 Governance arrangement of shared digital service platform among ecosystem organizations ... 3
4.2.1 General ... 3
4.2.2 Centralized model ... 3
4.2.3 Consortium model ... 3
4.2.4 Open platform model ... 3
4.3 Consortium model — exemplar of an alliance ... 4
5 Benefits of good governance of a shared digital service platform ... **5**
6 Governance framework for a shared digital service platform ... **5**
7 Governance model for organizations participating in shared digital service platform ... **6**
8 Guidance for the governance of a shared digital service platform ... **8**
8.1 General ... 8
8.2 Strategy ... 8
8.3 Acquisition ... 8
8.4 Compliance ... 9
8.5 Performance ... 9
8.6 Human behaviour and culture ... 9
8.7 Data quality ... 10
8.8 Risk governance ... 10
8.9 Organizational governance oversight ... 11
9 Guidance for the management of shared digital service platform ... **12**
9.1 Roles of management ... 12
9.2 Considerations for management systems ... 12
Annex A (informative) **Plug and play architecture of a platform and its ecosystem** ... **14**
Annex B (informative) **Use case of shared digital service platform** ... **15**
Bibliography ... **16**

© ISO/IEC 2024 – All rights reserved

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 or www.iec.ch/members_experts/refdocs).

ISO and IEC draw attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO and IEC take no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO and IEC had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents and https://patents.iec.ch. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 40, *IT service management and IT governance.*

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-committees.

© ISO/IEC 2024 – All rights reserved

Introduction

Organizations are increasingly using plug and play architecture on shared digital service platforms to develop new digital services that can be adapted to meet future needs. This architecture allows organizations to add new applications and features to the platform without disrupting the overall system. Using a shared digital service platform also enables organizations to enhance the value they offer to customers by bundling existing capabilities with new digital capabilities and forming flexible value networks with business partners and suppliers.

The plug and play architecture of a shared digital service platform can easily add the applications of suppliers or other ecosystem organizations. For example, a product manufacturer could monitor product performance data for preventive maintenance by adding applications from their part suppliers and other ecosystem organizations.

The plug and play architecture of a shared digital service platform also enables independently developed applications to be combined and integrated into the platform through a standardized interface, thereby reducing overall adjustment costs incurred in the platform ecosystem. The plug and play architecture of the platform enables ecosystem organizations to focus on their work relatively autonomously, which ultimately helps to lower both application innovation costs and system integration costs borne by the ecosystem organizations.

The plug and play architecture of a shared digital service platform lays the foundation for platform participants to innovate the platform through application development instead of the platform owner being fully responsible for application development and thus platform innovation. The plug and play architecture of the platform and its underlying scalable technologies, with the option of adding additional elements [technology for Internet of Things (IoT), data storage, application development, analytics and security], makes it possible for organizations to dramatically enhance value offered to customers by easily expanding the organizations' existing capabilities with new digital capabilities in cooperation with the ecosystem organizations.

The use of a shared digital service platform creates governance and control issues that the governing body and management have to ensure are addressed. These include ensuring that there is a clear basis for governance and a governance framework that provides policies and accountabilities that meet the organization's requirements.

This document aims to provide guidance to the governing body of organizations that are accountable for their organization's adoption of a digital service platform among an ecosystem organization. Thus, this document focuses on governance and not on the technologies themselves. The technological and managerial aspects of a "digital service platform" are only covered to the extent that is necessary to understand the governance implications of their use.

For information on the technological aspects of digital service platforms and cloud computing, please see ISO/IEC TS 5928 and ISO/IEC 22123-2.

This document is applicable to all organizations, including public and private companies, government entities, and not-for-profit organizations. This document is applicable to organizations of all sizes from the smallest to the largest, regardless of the extent of their dependence on data or information technologies.

© ISO/IEC 2024 – All rights reserved

Information technology — Governance of IT — Governance implications of the use of a shared digital service platform among ecosystem organizations

1 Scope

This document provides guidance for members of governing bodies of organizations on the effective, efficient and acceptable use of a shared digital service platform among ecosystem organizations by:

— establishing a vocabulary for the governance of a shared digital service platform among ecosystem organizations;

— providing a framework for understanding the implications of the use of a shared digital service platform among ecosystem organizations;

— guiding governing bodies to evaluate, direct and monitor the introduction and use of a digital service platform, applying the governance principles of ISO/IEC 38500;

— assuring stakeholders that, if the guidance proposed by this document is followed, they can have confidence in the organization's use of shared digital service platform among ecosystem organizations.

This document also provides guidance to those advising, informing or assisting governing bodies, including:

— executive managers;

— members of groups monitoring the resources within the organization;

— external businesses or technical specialists, such as legal or accounting specialists, retail or industrial associations, or professional bodies;

— public authorities and policy makers;

— internal and external service providers (including consultants);

— auditors.

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 38500, *Information technology — Governance of IT for the organization*

ISO/IEC 38505-1, *Information technology — Governance of IT — Governance of data — Part 1: Application of ISO/IEC 38500 to the governance of data*

ISO 37000, *Governance of organizations — Guidance*

© ISO/IEC 2024 – All rights reserved