INTERNATIONAL ISO/IEC

First edition
2022-06

Cybersecurity — IoT security and privacy — Guidelines

Cybersécurité — Sécurité et protection de la vie privée pour l'IoT — Lignes directrices

Reference number
ISO/IEC 27400:2022(E)

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

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *Information security, cybersecurity and privacy protection*.

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

Information security is a major concern of any information and communication technology (ICT) system and Internet of Things (IoT) systems are no exception. IoT systems present particular challenges for information security in that they are highly distributed and involve a large number of diverse entities. This implies that there are a very large attack surface and a significant challenge for the information security management system (ISMS) to apply and maintain appropriate security controls across the whole system.

Privacy or personally identifiable information (PII) protection is a significant concern for some types of IoT systems. Where an IoT system acquires or uses PII, it is usually the case that there are laws and regulations that apply to the acquisition, storage and processing of PII. Even where regulations are not a concern, the handling of PII by an IoT system remains a reputational and trust concern for the organizations involved, for example, if the PII is stolen or is misused, potentially causing some form of harm to the people identified by the information.

Security and privacy controls in this document are developed for stakeholders in an IoT system environment, so as to be utilized by each IoT stakeholder, throughout the IoT system life cycle.