

---

---

**Security and resilience — Authenticity,  
integrity and trust for products  
and documents — Guidelines for  
establishing interoperability among  
object identification systems to deter  
counterfeiting and illicit trade**

iTeh Standards

(<https://standards.iteh.ai>)

Document Preview

[ISO 22381:2018](https://standards.iteh.ai/catalog/standards/iso/8d949ddb-9331-4a8b-bcde-5221045fd757/iso-22381-2018)

<https://standards.iteh.ai/catalog/standards/iso/8d949ddb-9331-4a8b-bcde-5221045fd757/iso-22381-2018>



**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[ISO 22381:2018](https://standards.iteh.ai/catalog/standards/iso/8d949ddb-9331-4a8b-bcde-5221045fd757/iso-22381-2018)

<https://standards.iteh.ai/catalog/standards/iso/8d949ddb-9331-4a8b-bcde-5221045fd757/iso-22381-2018>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

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  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
Foreword .....	iv
Introduction .....	v
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Abbreviated terms</b> .....	<b>2</b>
<b>5 Planning, implementing and controlling systems' interoperability</b> .....	<b>2</b>
5.1 Identify stakeholders and their needs .....	2
5.2 Organize stakeholders .....	3
5.2.1 Identify lead stakeholder .....	3
5.2.2 Define roles and responsibilities .....	3
5.2.3 Develop a contractual framework .....	3
5.2.4 Set up an onboarding and leaving process .....	4
5.3 Plan architecture .....	4
5.3.1 General principles .....	4
5.3.2 Identify participating OIAs and functional blocs to form the constituents of the I-OP .....	5
5.3.3 Study types and ownership of attributes to be handled .....	6
5.3.4 Specify TEPs for secure I-OP access .....	6
5.3.5 Specify access rules for users .....	7
5.3.6 Define and improve trust levels .....	7
5.3.7 Outline or delimit the usage of participating OIAs and their functional units .....	8
5.3.8 Draft an I-OP architecture .....	8
5.3.9 Return information back to the source .....	8
5.4 Plan and implement operations .....	9
5.4.1 Define data exchange formats .....	9
5.4.2 Establish trust into the service behind a particular UID .....	9
5.4.3 Delimit data inputs and outputs .....	9
5.4.4 Define storage and custodianship of data inputs and outputs .....	10
5.4.5 Define operational responsibilities .....	10
5.4.6 Prepare for systems failures .....	10
5.4.7 Negotiate alarm responses of common interest .....	10
5.4.8 Run pilots .....	11
5.5 Review and improve .....	11
5.5.1 General .....	11
5.5.2 Revisit stakeholders' expectations .....	11
5.5.3 Review operations .....	11
5.5.4 Review security .....	11
5.5.5 Review technology .....	12
<b>Annex A (informative) Typical stakeholder interests in an I-OP</b> .....	<b>13</b>
<b>Annex B (informative) The role of trusted entry points for user groups</b> .....	<b>18</b>
<b>Annex C (informative) Types of information exchanged in I-OP architectures</b> .....	<b>19</b>
<b>Bibliography</b> .....	<b>20</b>

## 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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 292, *Security and resilience*.

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](http://www.iso.org/members.html).

ISO 22381:2018

<https://standards.iteh.ai/catalog/standards/iso/8d949ddb-9331-4a8b-bcde-5221045fd757/iso-22381-2018>