

INTERNATIONAL
STANDARD

ISO/IEC
17203

Second edition
2017-09

Information technology — Open Virtualization Format (OVF) specification

*Technologies de l'information — Spécification du format de
virtualisation ouvert (OVF)*

ISO/IEC 17203:2017 - Preview only Copy via ILNAS e-Shop



Reference number
ISO/IEC 17203:2017(E)

© ISO/IEC 2017



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, 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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 <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 and IEC 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 on the voluntary nature of Standard, the meaning of the ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword – Supplementary information](#)

This document was prepared by ANSI (as INCITS 469-2015) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

The list of all currently available parts of ISO/IEC 17203 series, under the general title *Information technology*, can be found on the [ISO web site](#).

CONTENTS

1	Scope	1
2	Normative references	1
3	Terms and definitions	3
4	Symbols and abbreviated terms	5
5	OVF package	5
5.1	OVF package structure	5
5.2	Virtual disk formats	6
5.3	OVF package options	6
5.4	Distribution as a set of files	7
6	OVF descriptor	7
7	Envelope element	8
7.1	File references	8
7.2	Content element	9
7.3	Extensibility	10
7.4	Conformance	10
8	Virtual hardware description	11
8.1	VirtualHardwareSection	11
8.2	Extensibility	12
8.3	Virtual hardware elements	12
8.4	Ranges on elements	14
9	Core metadata sections	16
9.1	DiskSection	17
9.2	NetworkSection	18
9.3	ResourceAllocationSection	18
9.4	AnnotationSection	19
9.5	ProductSection	19
9.6	EulaSection	21
9.7	StartupSection	22
9.8	DeploymentOptionSection	23
9.9	OperatingSystemSection	24
9.10	InstallSection	24
9.11	EnvironmentFilesSection	24
9.12	BootDeviceSection	25
9.13	SharedDiskSection	25
9.14	ScaleOutSection	26
9.15	PlacementGroupSection and PlacementSection	27
9.16	EncryptionSection	28
10	Internationalization	29
10.1	Internal resource bundles	29
10.2	External resource bundles	29
10.3	Message content in external file	30
11	OVF environment and OVF environment file	30
11.1	Transport media	31
11.2	Transport media type	31
	ANNEX A (informative) Symbols and conventions	33
	ANNEX B (normative) OVF XSD	34
	ANNEX C (informative) OVF mime type registration template	35
	ANNEX D (informative) OVF examples	37
	D.1 Examples of OVF package structure	37
	D.2 Examples of distribution of files	37
	D.3 Example of envelope element	38
	D.4 Example of file references	38
	D.5 Example of content element	39
	D.6 Examples of extensibility	39
	D.7 Examples of VirtualHardwareSection	40

D.8	Examples of virtual hardware elements.....	40
D.9	Example of ranges on elements	41
D.10	Example of DiskSection	42
D.11	Example of NetworkSection.....	42
D.12	Example of ResourceAllocationSection.....	42
D.13	Example of annotation	43
D.14	Example of Product section	43
D.15	Example of EULA section	43
D.16	Example of StartupSection	44
D.17	Example of DeploymentOptionSection	44
D.18	Example of OperatingSystemSection	45
D.19	Example of InstallSection	45
D.20	Example of EnvironmentFilesSection	45
D.21	Example of BootDeviceSection	45
D.22	Example of SharedDiskSection	46
D.23	Example of ScaleOutSection	46
D.24	Example of PlacementGroupSection.....	47
D.25	Example of EncryptionSection.....	48
D.26	Example of internationalization.....	49
D.27	Example of message content in an external file	50
D.28	Example of environment document	51
ANNEX E	(informative) Network port profile examples	52
E.1	Example 1 (OVF descriptor for one virtual system and one network with an inlined network port profile)	52
E.2	Example 2 (OVF descriptor for one virtual system and one network with a locally referenced network port profile).....	53
E.3	Example 3 (OVF descriptor for one virtual system and one network with a network port profile referenced by a URI)	55
E.4	Example 4 (OVF descriptor for two virtual systems and one network with two network port profiles referenced by URIs).....	57
E.5	Example 5 (networkportprofile1.xml)	59
E.6	Example 6 (networkportprofile2.xml)	60
ANNEX F	(informative) Deployment considerations.....	61
F.1	OVF package structure deployment considerations.....	61
F.2	Virtual hardware deployment considerations.....	61
F.3	Core metadata sections deployment considerations.....	61

Tables

Table 1 – XML namespace prefixes	8
Table 2 – Actions for child elements with <code>ovf:required</code> attribute	12
Table 3 – HostResource element	13
Table 4 – Elements for virtual devices and controllers	14
Table 5 – Core metadata sections	16
Table 6 – Property types	21
Table 7 – Property qualifiers	21
Table 8 – Availability attributes	27
Table 9 – Affinity Attributes	28
Table 10 – Allowed combinations of scoped affinity and availability	28
Table 11 – Core sections for OEF	31