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Information technology — Open Virtualization Format (OVF) specification

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

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Foreword (This foreword is not part of American National Standard INCITS 469-2010.)

The *Open Virtualization Format (OVF) Specification* describes an open, secure, portable, efficient and extensible format for the packaging and distribution of software to be run in virtual machines. The key properties of the format are as follows:

- **Optimized for distribution:** OVF supports content verification and integrity checking based on industry-standard public key infrastructure, and it provides a basic scheme for management of software licensing.
- **Optimized for a simple, automated user experience:** OVF supports validation of the entire package and each virtual machine or metadata component of the OVF during the installation phases of the virtual machine (VM) lifecycle management process. It also packages with the package relevant user-readable descriptive information that a virtualization platform can use to streamline the installation experience.
- **Supports both single VM and multiple-VM configurations:** OVF supports both standard single VM packages and packages containing complex, multi-tier services consisting of multiple interdependent VMs.
- **Portable VM packaging:** OVF is virtualization platform neutral, while also enabling platform-specific enhancements to be captured. It supports the full range of virtual hard disk formats used for hypervisors today, and it is extensible, which allow it to accommodate formats that may arise in the future. Virtual machine properties are captured concisely and accurately.
- **Vendor and platform independent:** OVF does not rely on the use of a specific host platform, virtualization platform, or guest operating system.
- **Extensible:** OVF is immediately useful - and extensible. It is designed to be extended as the industry moves forward with virtual appliance technology. It also supports and permits the encoding of vendor-specific metadata to support specific vertical markets.
- **Localizable:** OVF supports user-visible descriptions in multiple locales, and it supports localization of the interactive processes during installation of an appliance. This capability allows a single packaged appliance to serve multiple market opportunities.
- **Open standard:** OVF has arisen from the collaboration of key vendors in the industry, and it is developed in an accepted industry forum as a future standard for portable virtual machines.

It is not an explicit goal for OVF to be an efficient execution format. A hypervisor is allowed but not required to run software in virtual machines directly out of the Open Virtualization Format.

This standard contains four annexes. Annex C is normative and is considered part of this standard. Annexes A, B, and D are informative and are not considered part of this standard.

Requests for interpretation, suggestions for improvement or addenda, or defect reports are welcome. They should be sent to InterNational Committee for Information Technology Standards (INCITS), ITI, 1101 K Street, NW, Suite 610, Washington, DC 20005.

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The Open Virtualization Format Specification (DSP0243) was prepared by the System Virtualization, Partitioning, and Clustering Working Group of the DMTF.

This specification has been developed as a result of joint work with many individuals and teams, including:

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Open Virtualization Format (OVF) Specification

1 Scope

The *Open Virtualization Format (OVF) Specification* describes an open, secure, portable, efficient and extensible format for the packaging and distribution of software to be run in virtual machines.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

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