

# DMTF System Virtualization Partitioning & Clustering

SVPC Work Group

## **SVPC Current Work**

Virtualization Management 2 is in development in the work group. This extends the resource allocation model to include aggregating resources from multiple resource pools. Improved resource allocation descriptors better define the underlying resources that support the pool and the virtual resources allocated from that pool to support the virtual computer systems.

Virtualization Management 2 uses a scalable recursive resource model to allow collections of virtual computer systems (aka Virtual Machine) to be managed and thus supports management of a data center or multiple data centers.

Virtual Networking is part of this effort and is currently working on:

- Definition of CIM-based data
- OVF extensions for Network and Storage Networking deployment
- A Port Profile XML Schema for describing VSI Network attributes
- Extensions for Edge Virtual Bridging
- Extensions for Firewalls and Load Balancers
- Extensions for PCI SRIOV technology

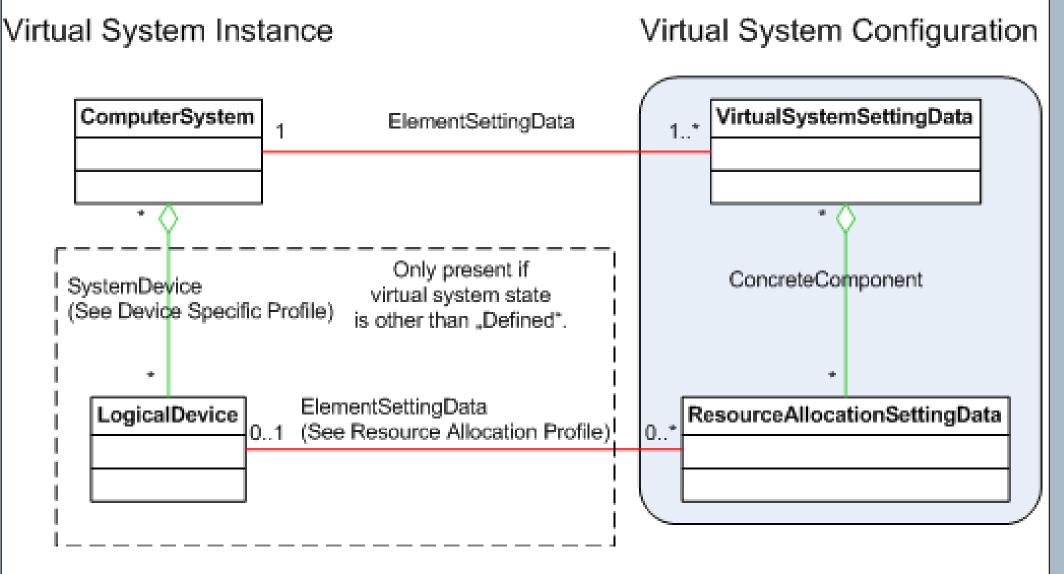
OVF 2 is in development in the work group. This extends the attributes to deal with:

- Device Boot order to allow adaptation of the virtual computer system on deployment
- Encryption of sections and disks within a package
- Display of EULA text with internationalization
- Virtual System Group for scaling virtual computer systems
- Passing data and files to the guest
- Shared disks
- Placement of virtual computer systems relative to each other
- Support for the Network Port Profile

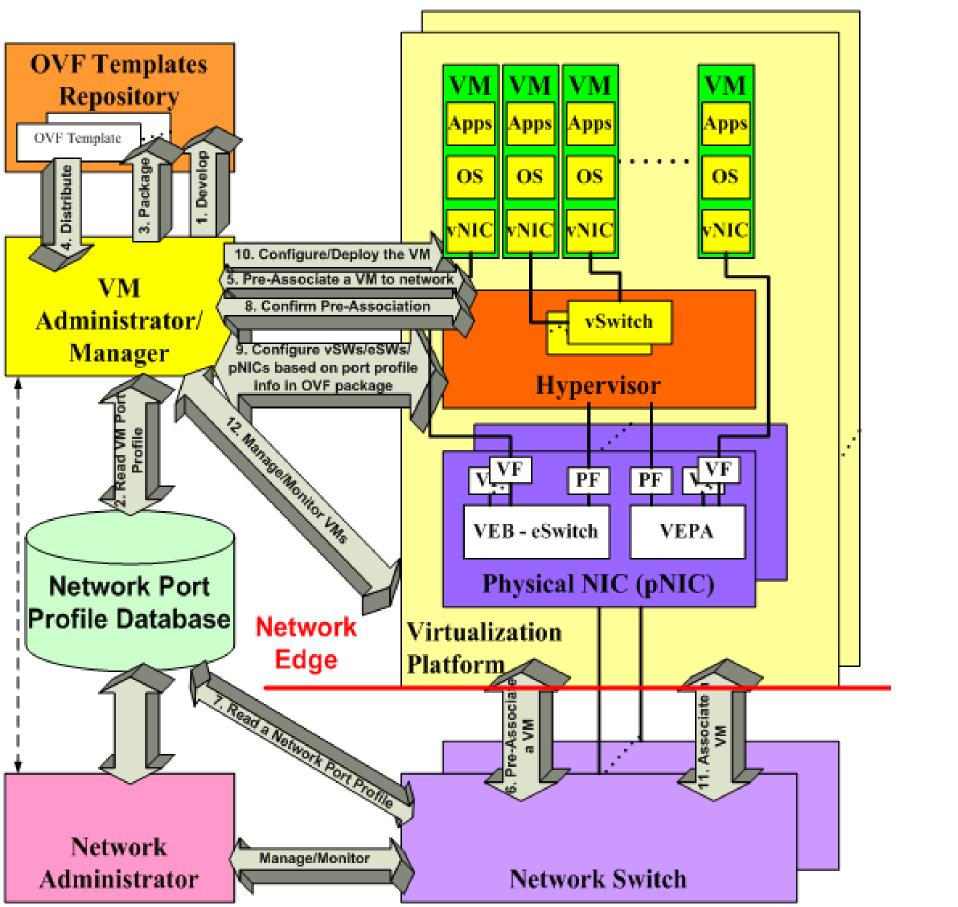
# Virtualization Management 2 – Development Title **DSP1041** Resource Allocation Profile DSP1042 System Virtualization Profile DSP8026 System Virtualization Message Registry DSP1044 System Virtualization Processor Resource Profile DSP1045 System Virtualization Memory Resource Profile DSP1050 System Virtualization Ethernet Port Resource Profile **DSP1081** System Virtualization Migration Profile DSP1047 System Virtualization Storage Resource Profile DSP1097 Virtual System Ethernet Switch Profile DSP2013 System Virtualization White Paper DSP8048 System Virtualization Metrics Registry DSP8049 Network Port Profile XML Schema DSP2025 Virtual Networking White Paper

# Virtualization Management Technology Overview

Virtualization Management standards provide a consistent way to discover, monitor, and administer virtualized computer systems. In conjunction with the Server Management standards it allows an IT organization a cost effective means to deal with a multi-vendor data center (both the physical and virtual systems).



Resource Allocation Diagram

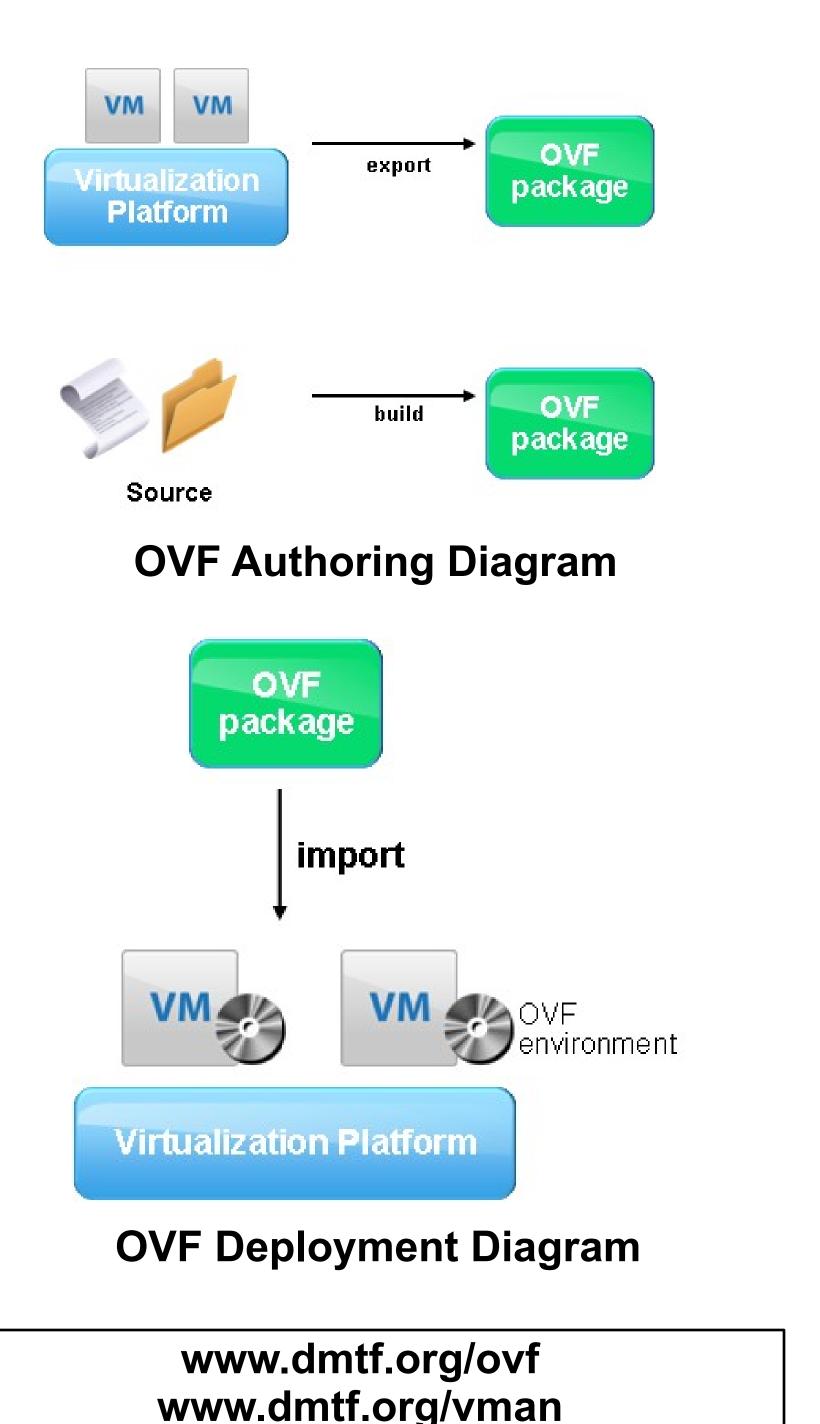


Network Port Profile Use Case Diagram

# Virtualization Management 1 - Published Title DSP# DSP1041 Resource Allocation Profile DSP1042 System Virtualization Profile DSP1043 Allocation Capabilities Profile DSP1044 Processor Resource Virtualization Profile DSP1045 Memory Resource Virtualization Profile DSP1047 Storage Resource Virtualization Profile DSP1057 Virtual System Profile DSP1059 Generic Device Resource Virtualization Profile **DSP2013** Virtualization White Paper DSP1050 Ethernet Port Resource Virtualization Profile OSP1097 Virtual System Ethernet Switch Prof

# **OVF Technology Overview**

OVF is a DMTF standard for packaging and distributing virtual appliances. A virtual appliance is a pre-built software solution, comprised of one or more virtual machines that are packaged, maintained, updated and managed as a unit. OVF enables portability and simplifies installation and deployment of workloads across multiple virtualization platforms and cloud computing infrastructures.



# www.dmtf.org/vman

Open Virtualization Format 1 - Published	
DSP#	Title
DSP0243	Open Virtualization Format Specification
DSP8023	OVF Envelope XSD
DSP8027	OVF Environment XSD
DSP2017	Open Virtualization Format Whitepaper
DSP2021	Open Virtualization Format Example
Open Virtualization Format 2.0 – Development	
DSP#	Title
DSP0243	Open Virtualization Format Specification
DSP1118	Profile to Enable Automated Deployment of OVF Package
DSP8023	OVF Envelope XSD
DSP8027	OVF Environment XSD
DSP2017	Open Virtualization Format Whitepaper
DSP2021	Open Virtualization Format Example

### **SVPC Charter**

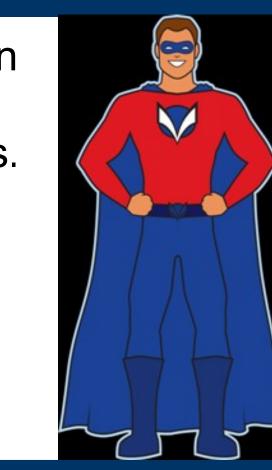
The System Virtualization, Partitioning and Clustering Work Group is developing DMTF standards for virtualization management. This includes the discovery, configuration, and active management of virtual computer systems.

Allocation of resources is based on a resource pool model. Supporting resources (i.e., servers, switches, storage) are aggregated into resource pools and allocated resources (i.e., virtual processors, memory, networks, storage) are assigned to virtual machines.

The work group is also developing specifications for the packaging and distribution of virtual appliances composed of one or more virtual computer systems.

# Virtualization & Cloud Management Forum

The goal of the VCM Forum is validation and interoperability of the virtualization, OVF, and cloud management standards.



### **Relevant Websites**

Fublished Standards http://dmtf.org/standards/published documents

DMTF Work in Progress Specifications http://dmtf.org/standards/wip

### **Contact information**

### **DMTF**

Distributed Management Task Force, Inc. www.dmtf.org

### **SVPC Work Group**

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