

### SVPC Current Work

System Virtualization Management 1 is being enhanced with an improved Ethernet Port Resource Virtualization Profile and Virtual System Ethernet Switch Profile. It is being extended to include migration with System Virtualization Migration Profile.

System 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.

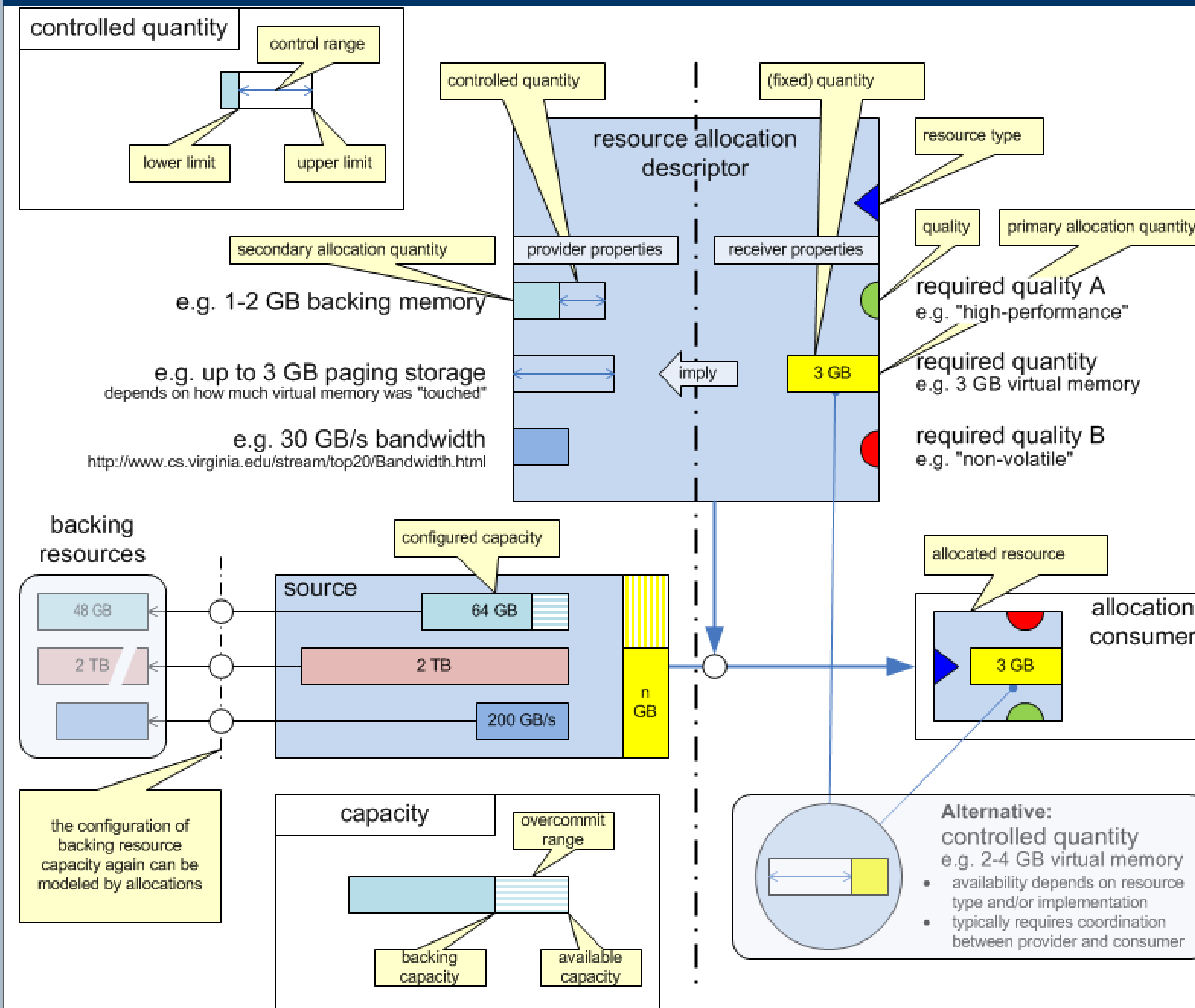
System Virtualization Management 2 uses a scalable recursive resource model to allow collections of virtual computer systems (aka Virtual Machines) to be managed and thus supports management of a data center or multiple data centers.

Resource Allocation Descriptors (RAD) are a central element for describing allocation data. The RADs are multi-dimensional: it describes what the consumer sees as well as what is needed from the provider. The basic concept of allocation is similar to Resource Allocation Setting Data (RASD) used in Virtualization Management 1, however the RAD is capable of providing a much higher level of detail when required. On the other hand the RAD allows the client to specify only the essential attributes of the desired resource while allowing the provider to determine the details. This makes resource requests simpler for the client.

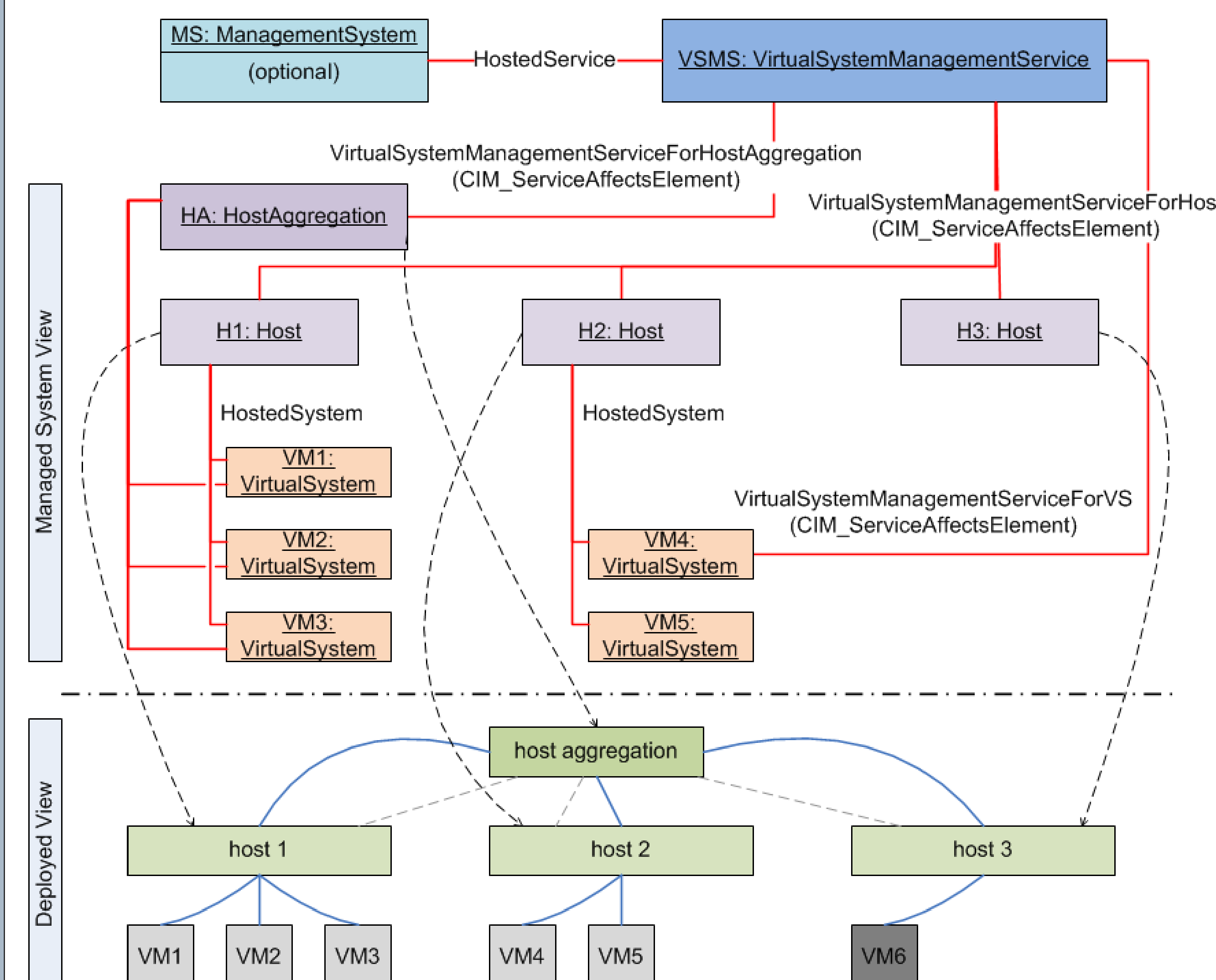
The RADs are embedded into the description of virtual devices; this reduces the numbers of association instances needed as well as the separate instances of RAD for the allocation. Instances of RADs are still used for definition of virtual resources.

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

### Virtualization Management Technology Overview



### System Virtualization Resource Allocation Principles



System Virtualization Management Service Diagram

HostAggregation and Host have common functionality that calls for a common base adaptation

The management system 'sees' HA, H1, H2, H3 and VM4 directly. VM1, VM2, VM3 are 'seen' through the HA.

The reason for modeling one service per management system: Clients "see" the service if the management system is active, but regardless of whether any of the managed systems is active.

Nevertheless, it is possible that one CIM\_ComputerSystem instance conforms to both the ManagementSystem and the HostAggregation (or even the Host) adaptation.

### SVPC Work Group 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.

### VCM Forum

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



[www.dmtf.org/ovf](http://www.dmtf.org/ovf)  
[www.dmtf.org/vman](http://www.dmtf.org/vman)

### Relevant Websites

DMTF Published Standards  
[http://dmtf.org/standards/published\\_documents](http://dmtf.org/standards/published_documents)

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

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