



Common Information Modeling for Advanced Virtual Ethernet Switches

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Agenda

Basic Virtual Ethernet Switch Model

Virtual Ethernet Switch CIM Classes

Use of the virtual Ethernet CIM classes in a Virtual Ethernet Switch

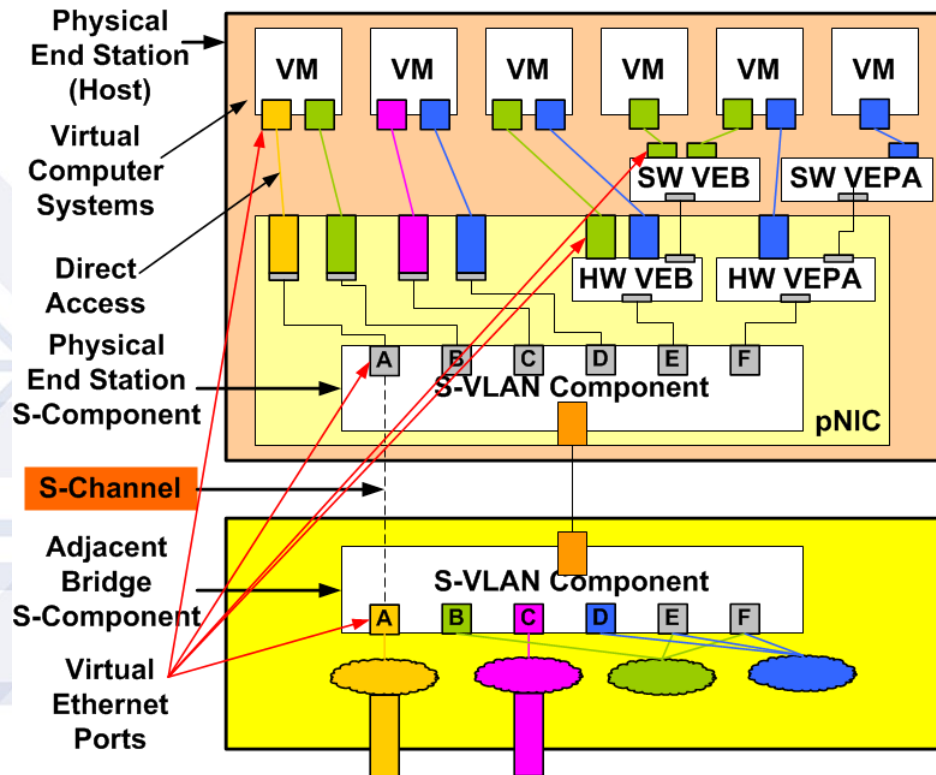
Use cases for virtual Ethernet switches and embedded Ethernet switches.





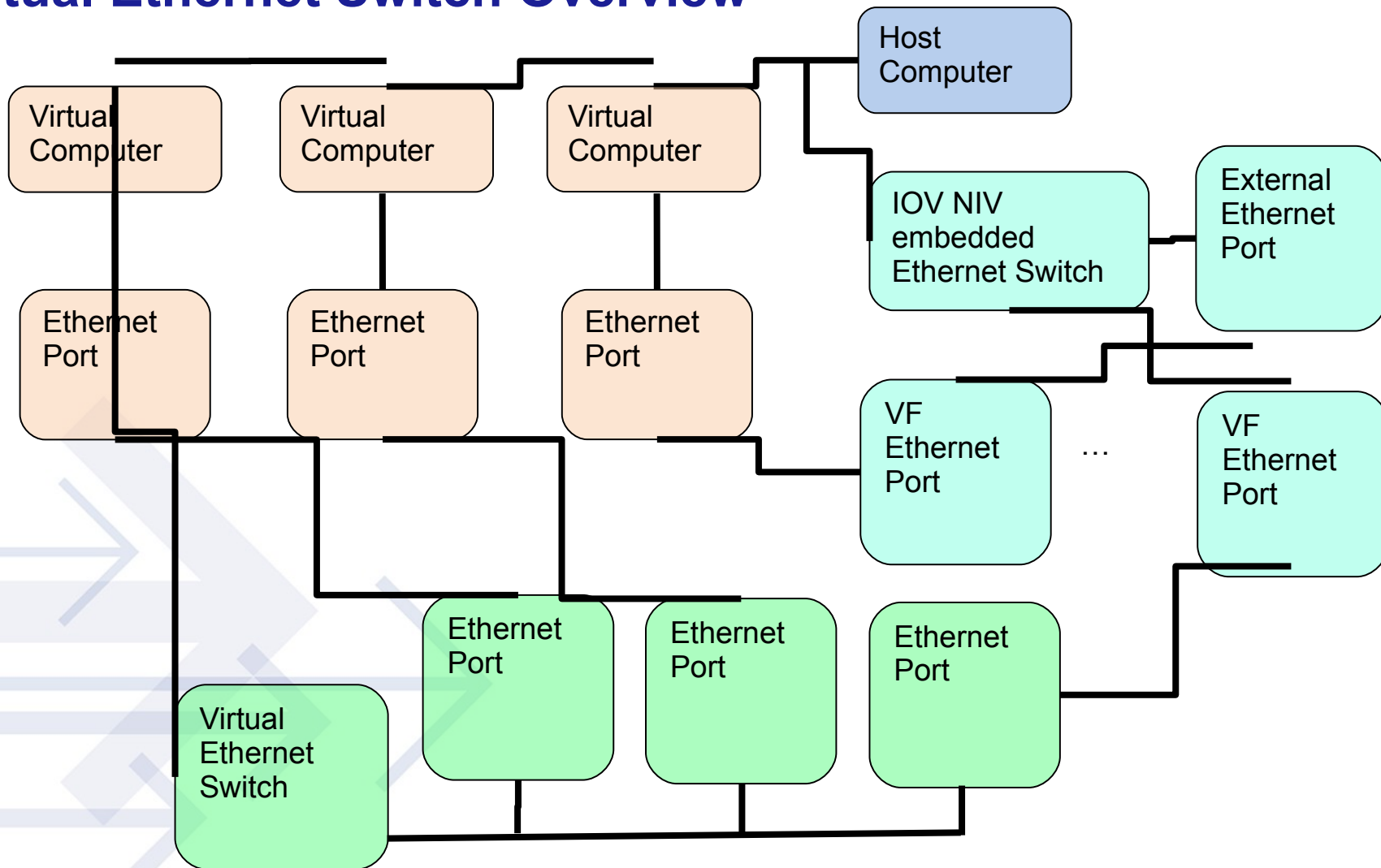
Virtual Networking

- Virtual networking enables connectivity between virtual systems
- Virtual network consists of virtual Ethernet ports and switches
- Virtual network component connectivity to physical network



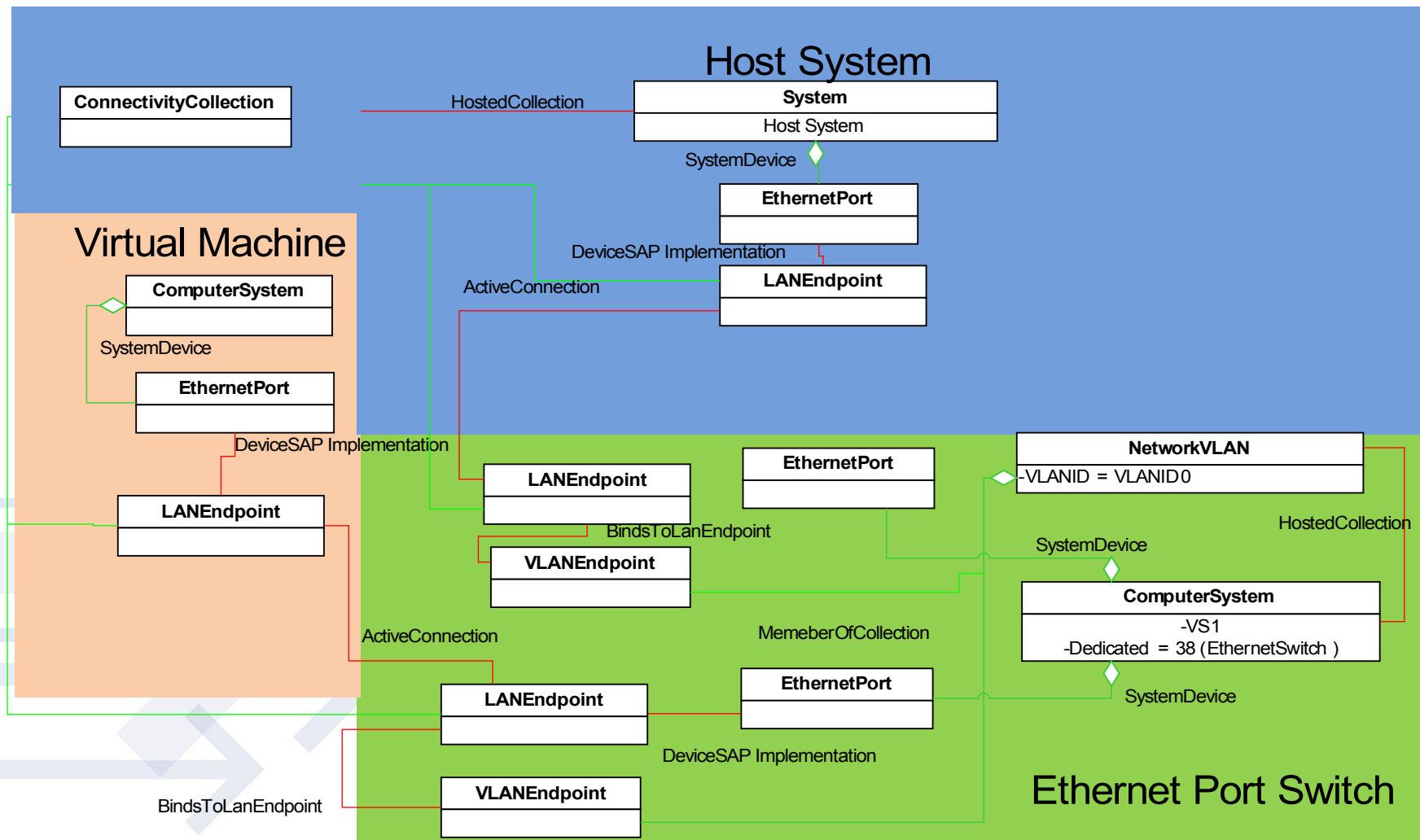


Virtual Ethernet Switch Overview





Virtual Ethernet Switch CIM Model in Host Environment





Virtual EthernetPortAllocationSettingData

Derived from the virtualization model's ResourceAllocationSettingData.

Contains an Ethernet switch ports VLAN configuration data.


Contains the necessary information to correlate an end station identity around the datacenter using the 802.1Qbg VSI discovery and configuration protocol.

Used in the allocation of an Ethernet switch port in the

Included in the Network Port Profile

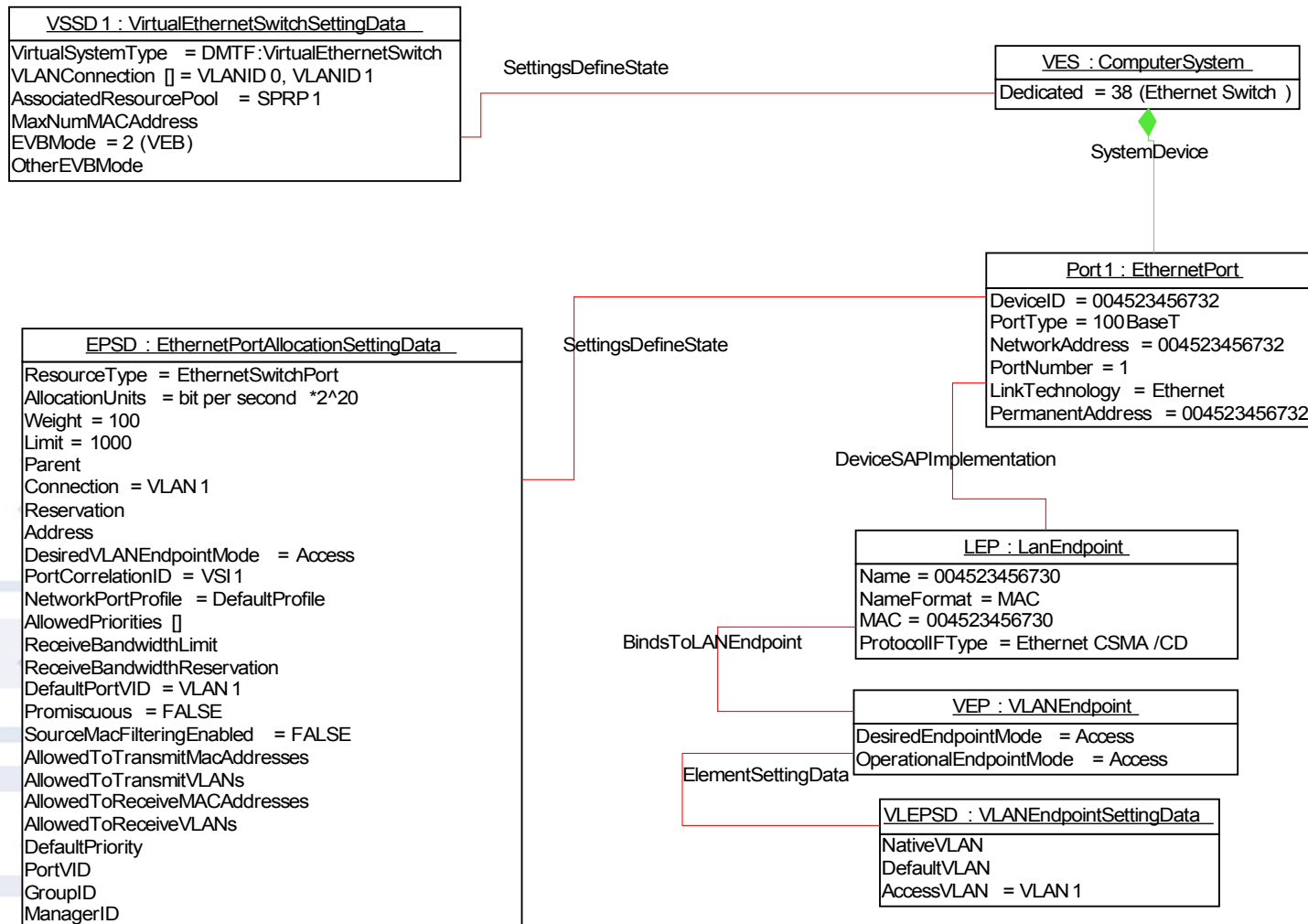
Categorization of Properties



Transmit Bandwidth	
Network Port Profile Identifier	
Priorities and Receive Bandwidth	
Port VLAN ID	
MAC/VLAN Based Filtering	

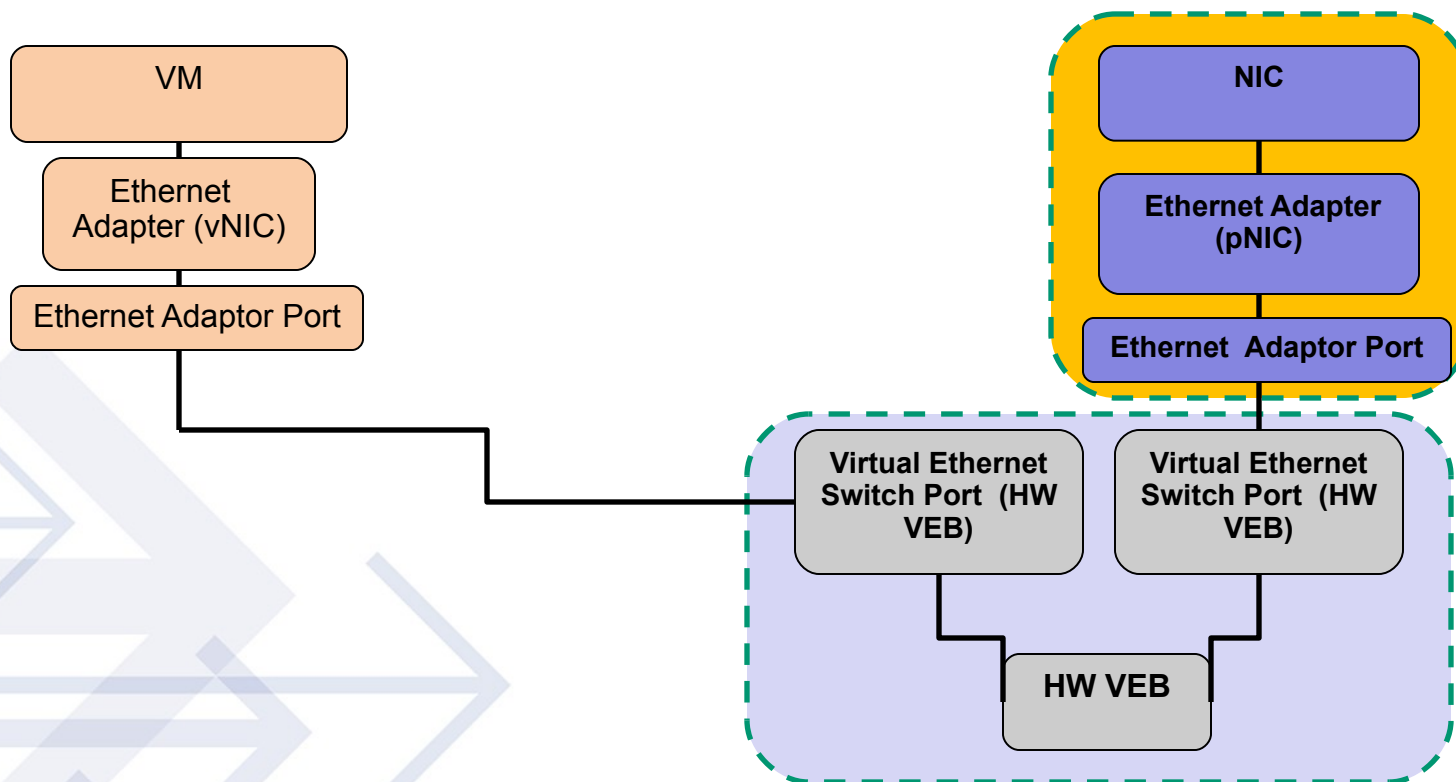


One port virtual Ethernet switch example



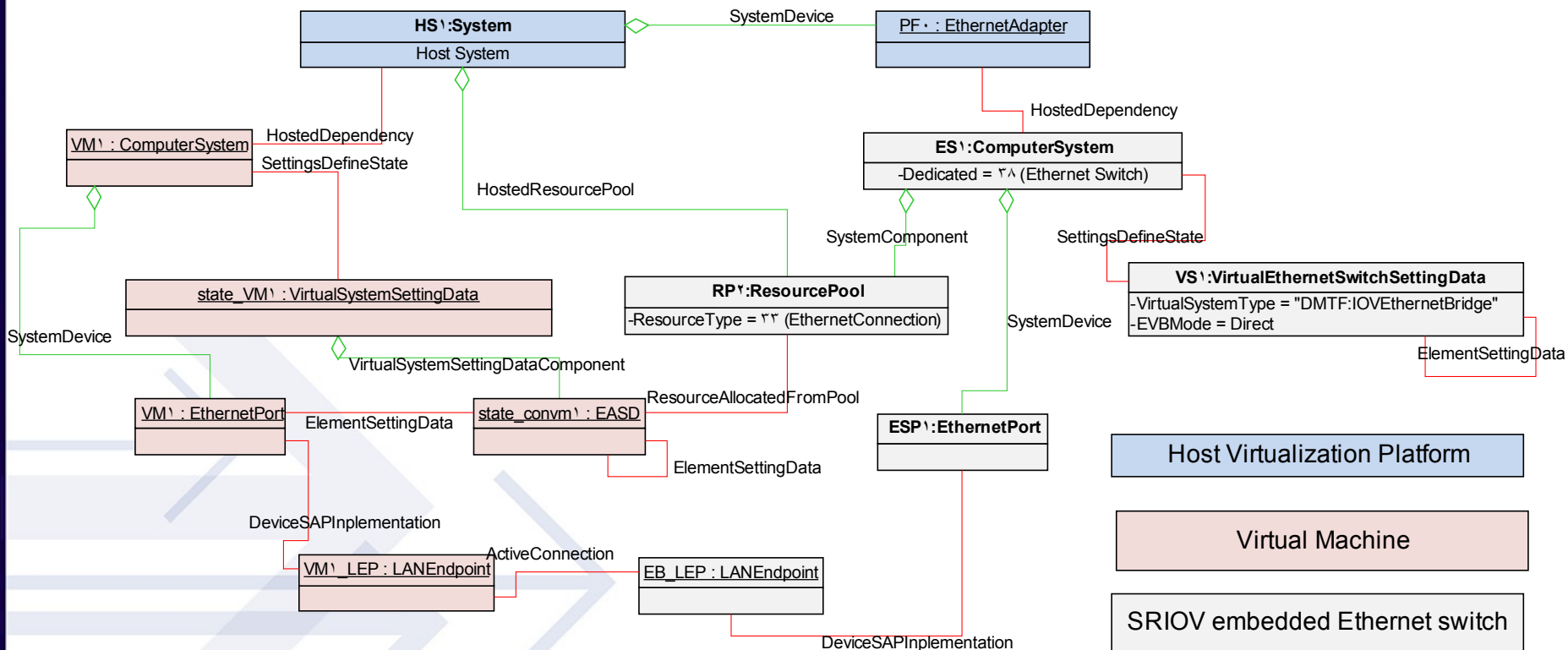


Virtual Machine connected to a NIC embedded Ethernet Switch



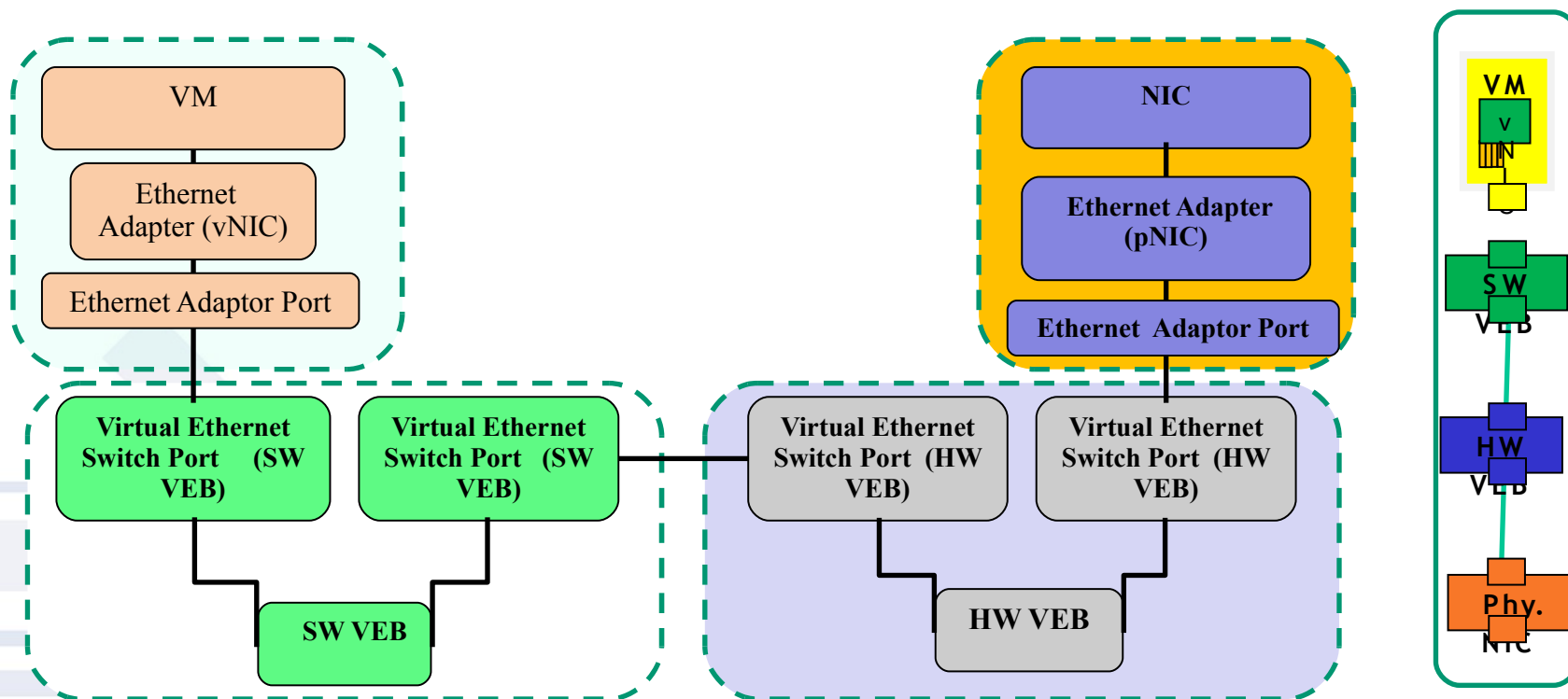


Virtual Machine connected to a NIC embedded Ethernet Switch



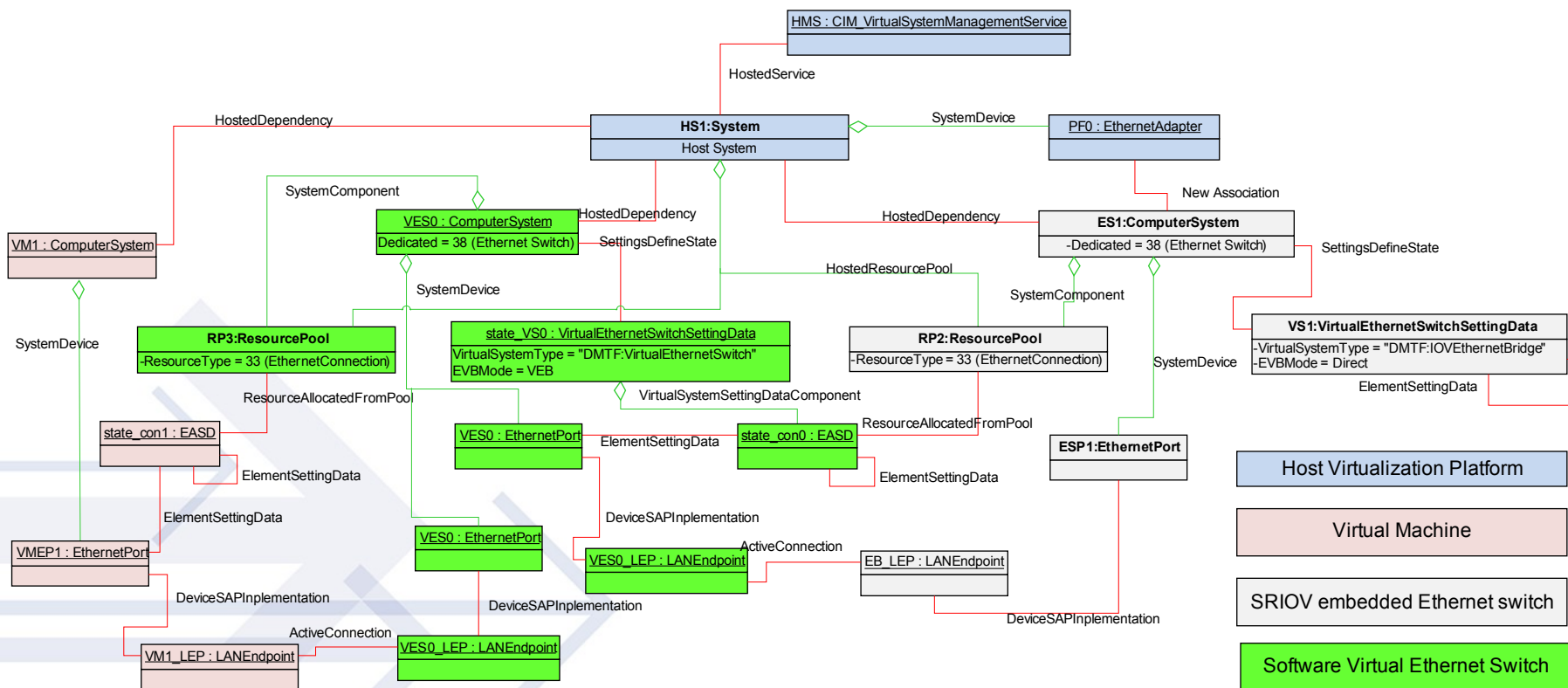


VM connected to vSwitch connected to eSwitch





VM connected to vSwitch connected to eSwitch



For Further Information

Further information: DMTF System Virtualization, Partitioning and Clustering WG
and SVPC Virtual Networking

For questions:

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Virtual Networking Management White Paper 1.0.0

Relevant Profiles:

DMTF DSP1014, *Ethernet Port Profile 1.0*

DMTF DSP1041, *Resource Allocation Profile 1.1*

DMTF DSP1042, *System Virtualization Profile 1.0*

DMTF DSP1043, *Allocation Capabilities Profile 1.0*

DMTF DSP1057, *Virtual System Profile 1.0*

DMTF DSP1050, *Ethernet Port Virtualization Profile 1.1*