

DMTF CIM-based Network Management*

NSMWG Work Group



*Note that this is a snapshot of a work in progress and is subject to change

NSMWG Current Work

With the advent of Software Defined Networks (SDNs) and virtual networks, programmatic and automated management of networks has become increasingly important. The Distributed Management Task Force (DMTF) Common Information Model (CIM) provides a strong foundation for developing abstract management models for logical networks and network services. The DMTF Network Services Management Working group is currently working on defining these models.

In Development

- Network Management Profile
- Network Policy Management Profile
- Access Control List Profile
- Layer 3 Interface Profile
- •BGP Profile
- Routing Profile
- Routing Service Profile

Future Work

- Firewall Profile
- Load Balancer Profile
- Quality of Service Profile
- Security Group Profile
- DHCP Service ProfileDNS Service Profile
 - Proposed Network Management Initiative

The goal of the Network Management Initiative is development of the network and policy models that can be used for programmatic and automated management of networks. These models can be applicable and shared across other network management standard development efforts conducted by other SDOs and Forums.

Relevant Websites

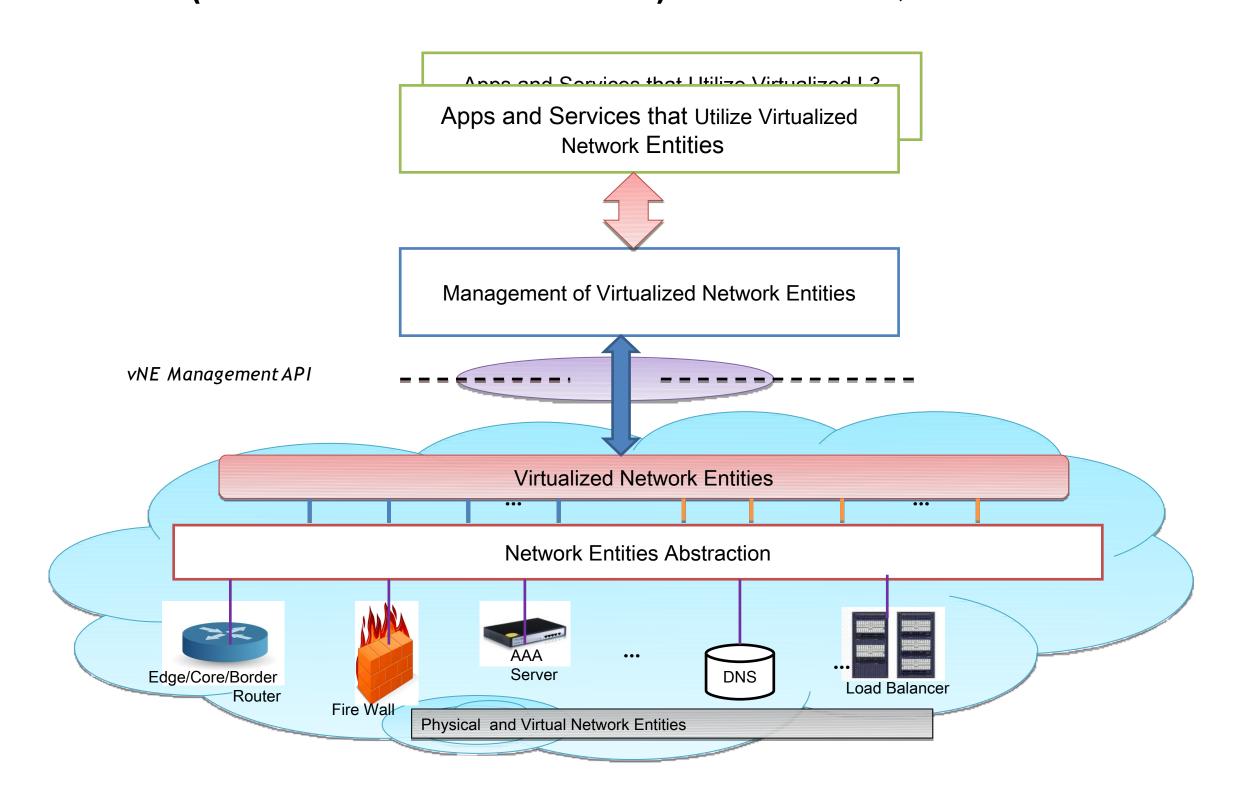
DMTF Published Standards
http://dmtf.org/standards/published_documents

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

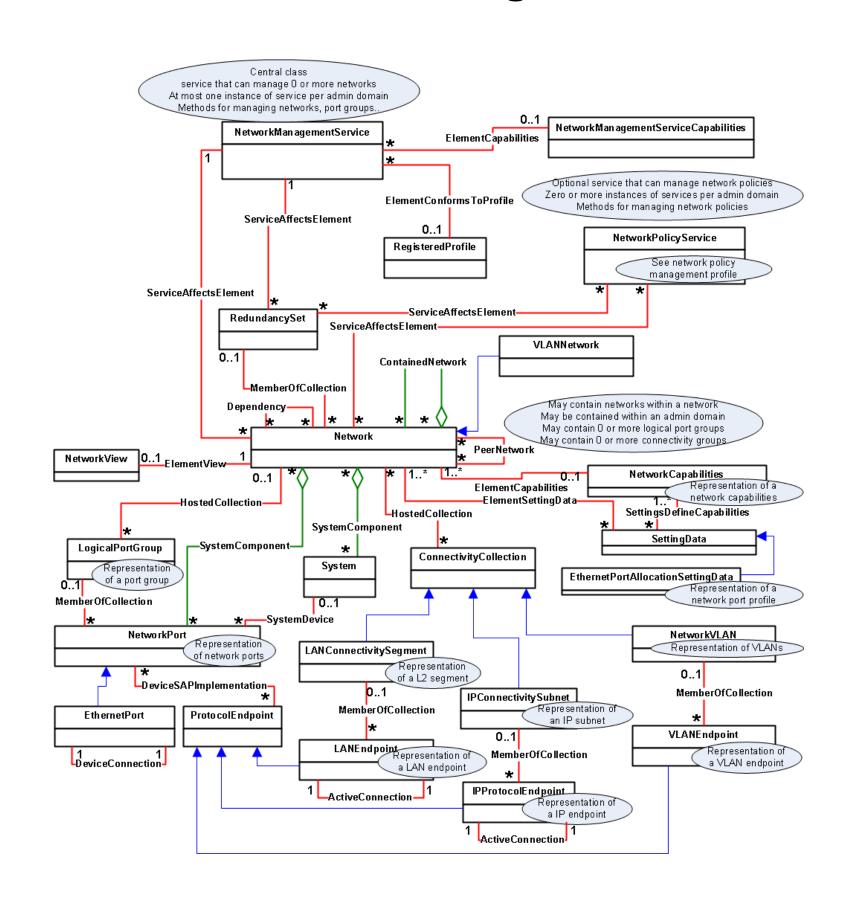
Standards Documents	
DSP#	Title
DSP1097	Virtual Ethernet Switch Profile
DSP1050	Ethernet Port Resource Allocation Profile
DSP2034	Network Services Management Use Cases
DSP8049	Network Port Profile XML Schema

Network Management and Network Policy Models

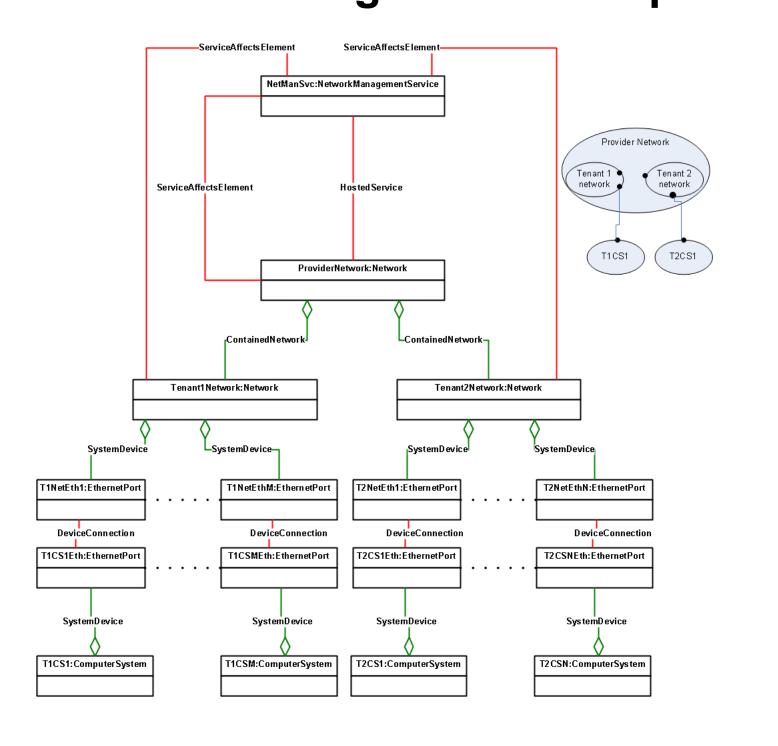
Network Entities (Resources and Services) Abstraction, Virtualization and Management



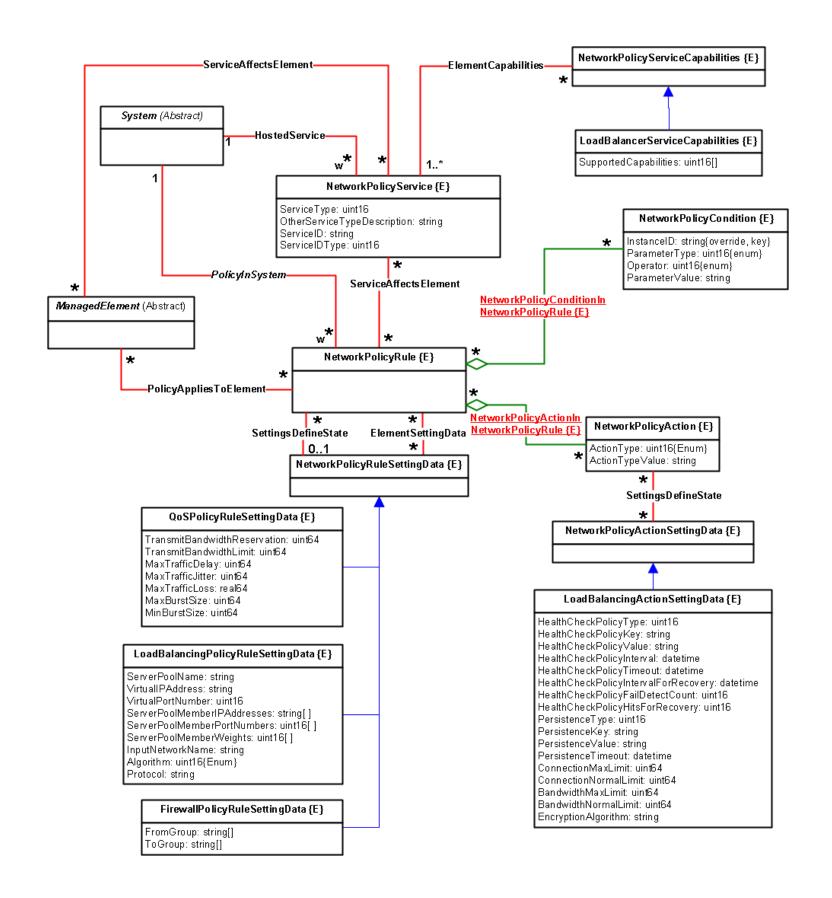
Network Management



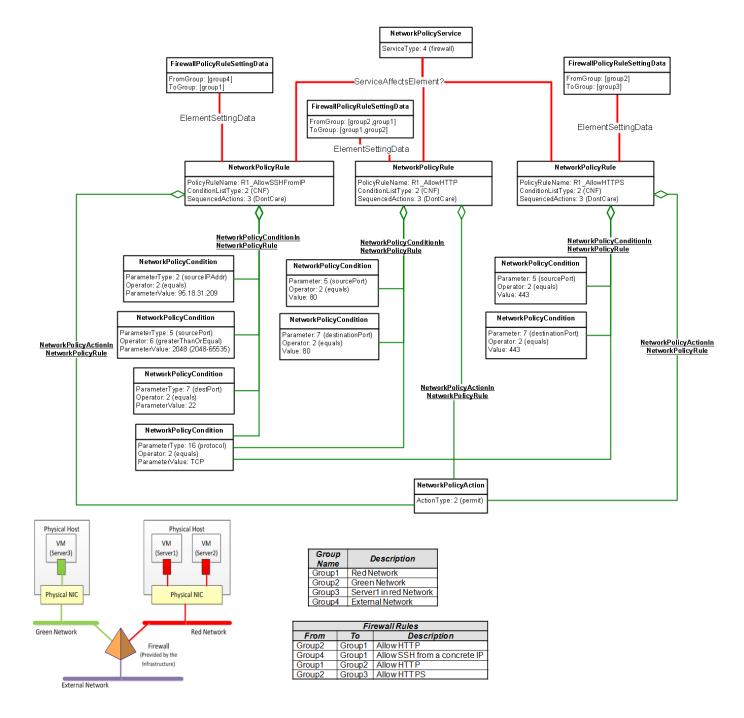
Network Management Example



Network Policy Management



Policy Example



Complimentary Standard Development Organizations

- Internet Engineering Task Force (IETF)
- Institute of Electrical and Electronics Engineers (IEEE)
- Open Data Center Alliance (ODCA)
- European Telecommunications Standards Institute (ETSI)
- TM Forum
- Object Management Group (OMG)
- Metro Ethernet Forum (MEF)
- Global Inter-Cloud Technology Forum (GICTF)
- Storage Networking Industry Association (SNIA)

Existing Alliance Partnerships

- Open Data Center Alliance (ODCA)
- European Telecommunications Standards Institute (ETSI)
- TM Forum
- Object Management Group (OMG)
- Metro Ethernet Forum (MEF)
- Global Inter-Cloud Technology Forum (GICTF)
- Storage Networking Industry Association (SNIA)

Contact information

DMTF

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

NSMWG Work Group

nsmwg@dmtf.org

nsmwg-chair@dmtf.org

Workgroup Chair

Workgroup Chair: Aleksandr Zhdankin, Cisco Systems. Workgroup Vice Chair: Bhumip Khasnabish, ZTE