Virtual Network Management Model for Data-Center Operations and Management

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- ## Background
  - ➢ Emerging data-center (DC) and cloud services
  - ➢ Utilization of server virtualization technologies
- ## Problems
  - ➢ Difficult management of topology of the DC-network including virtualized servers because of the difference of management information between servers and network devices
- ## Requirements
  - ➢ Standard way to describe DC-network topology
- ## Proposal
  - ➢ An information model that can represent the physical/virtual resources and topology of the DC-network
  - ➢ XML-based datamodel implementation example that is added at the -04 draft
  - ➢ An item of the dcops (DC operations) activity

- What is the essential information to manage DC networks?
  - ➢ Management information about physical topology and virtual topology seems essential to identify the customers that are affected by a device/link failure.
  - ➢ How about the management information about VPNs?
  - ➢ How about the traffic statistics information?

- What is the appropriate method to describe the management information about DC networks?
  - ➢ MIB-based datamodel which is widely deployed to the Internet?
  - ➢ XML-based datamodel like NETCONF datamodels?
  - ➢ CIM-based abstract datamodel like DMTF's SMASH and SNIA's SMI-S?

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A virtual network expands by server-virtualization.
Management information of switches and servers are different.