



oVirt Networking

Ovirt workshop 2013

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Red Hat

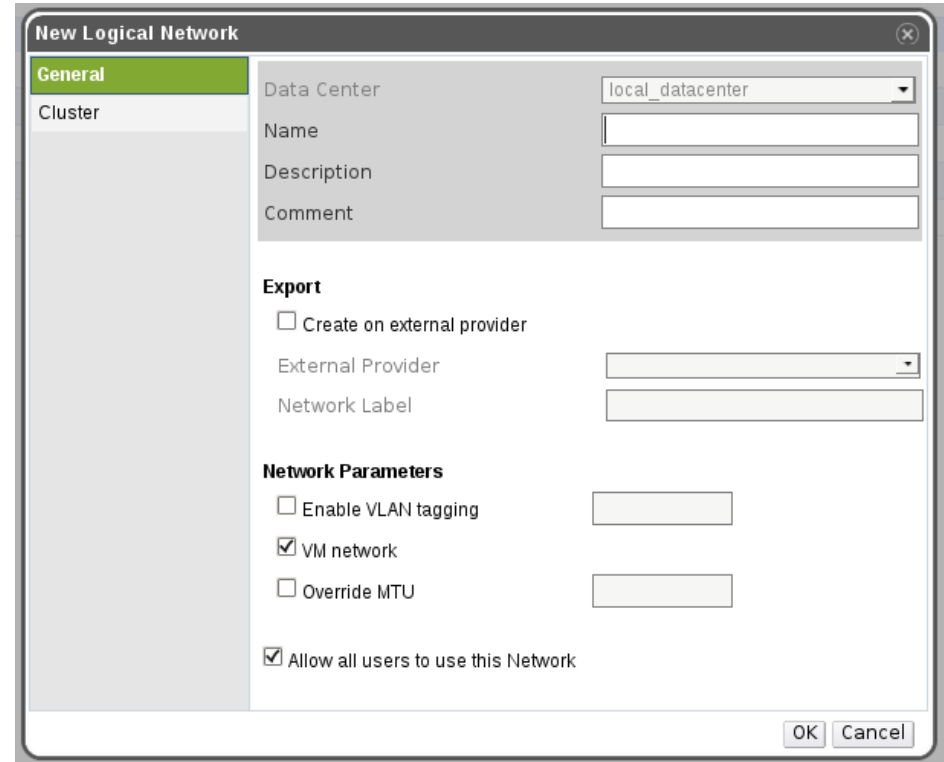
A logical entity that represents a layer 2 broadcast domain

The screenshot displays the oVirt Open Virtualization Manager interface. At the top, the user is logged in as `admin@internal`. A search bar contains the query: `Network: name = des datacenter = datacenter31`. The main navigation tabs include Clusters, Hosts, Networks (selected), Virtual Machines, and Templates. On the left, a tree view shows the system hierarchy: System > datacenter31 > Networks > des. The main content area shows a table of network configurations with the following data:

Name	Data Center	VM Network	VLAN tagging	MTU	Description
des	datacenter31	true	20	default	VM network for VMs on V

Adding a new Network

- Select a Data Center
- Define network properties (VLAN, MTU, Role)
- Make the network available in selected clusters



New Logical Network

General

Cluster

Data Center: local_datacenter

Name:

Description:

Comment:

Export

Create on external provider

External Provider:

Network Label:

Network Parameters

Enable VLAN tagging

VM network

Override MTU

Allow all users to use this Network

OK Cancel

Host Level Configuration

- Optional Vs. Required Networks
- Host level configuration:

Setup Host Networks

Drag to make changes

Interfaces

- bond0
 - eth1
 - eth2
- bond1
 - eth3
 - eth4
- eth0

Assigned Logical Networks

- NOVM_VLAN_MTU_5 (VLAN 500)
- VLAN_MTU_5000 (VLAN 222)
- VLAN_MTU_5000_2 (VLAN 52)

no network assigned

Unassigned Logical Networks

Required

- NON_VM_MTU_5000

Non Required

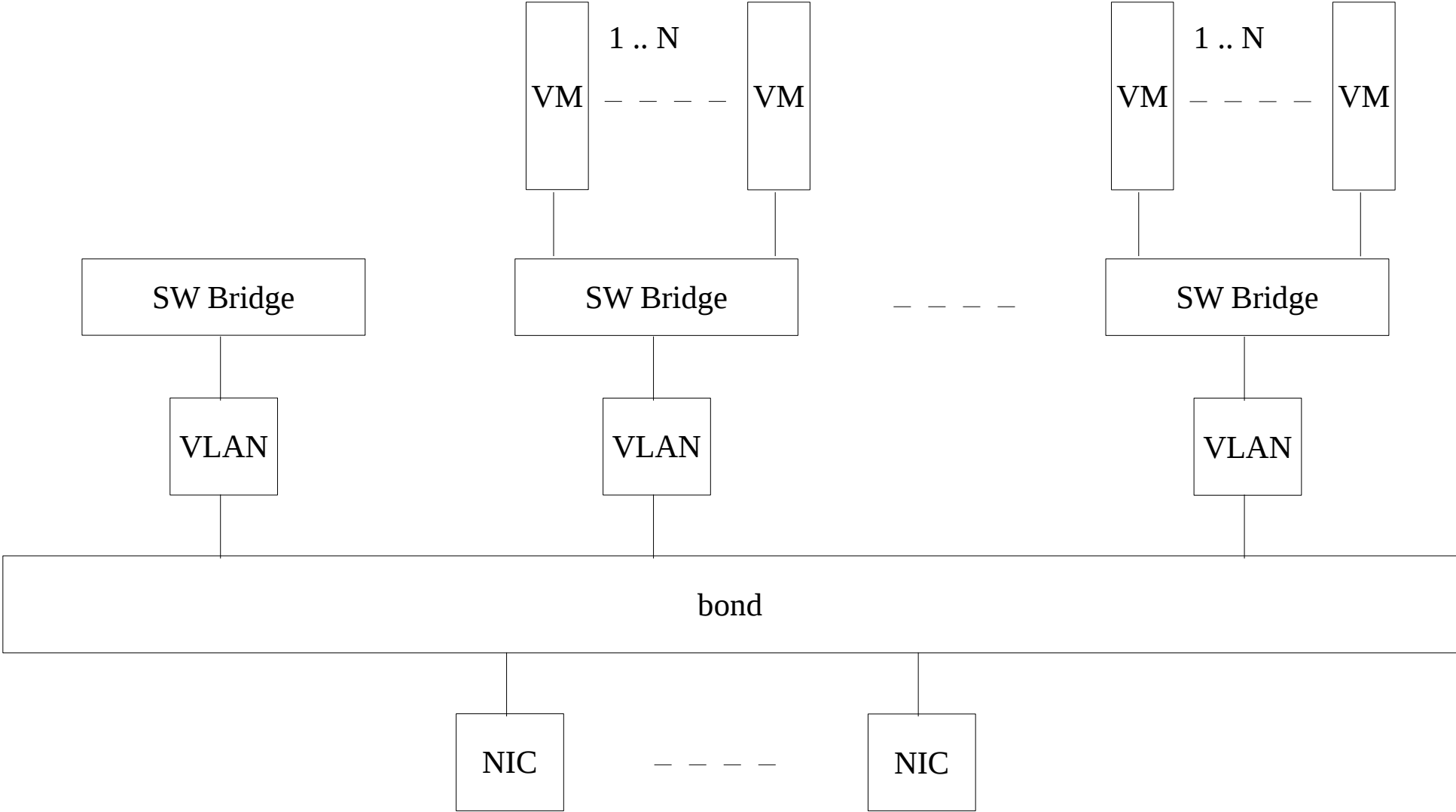
- NON_VM_MTU_9000
- NOVM_VLAN_MTU_9 (VLAN 900)
- VLAN_MTU_9000 (VLAN 9)
- VLAN_MTU_9000_2 (VLAN 92)

Verify connectivity between Host and Engine

Save network configuration

OK Cancel

Supported Configuration - Linux Bridge





What's New in 3.3?

Network Profiles & vNIC QoS

The screenshot shows the oVirt web interface with the 'vNIC Profiles' tab selected. A 'VM Interface Profile' dialog box is open, allowing configuration for a network profile. The dialog includes fields for Network (vmnet), Name, Description, QoS ([Unlimited]), and Port Mirroring (unchecked). It also features a key-value list (currently empty) and a checked checkbox for 'Allow all users to use this Profile'. The background shows a table of network profiles with columns for Name, Comment, Role, VLAN tag, Compatibility Version, and QoS Name.

Name	Comment	Role	VLAN tag
vmnet		vm	-

Name	Compatibility Version	QoS Name
vmnet	3.3	

External Network Provider

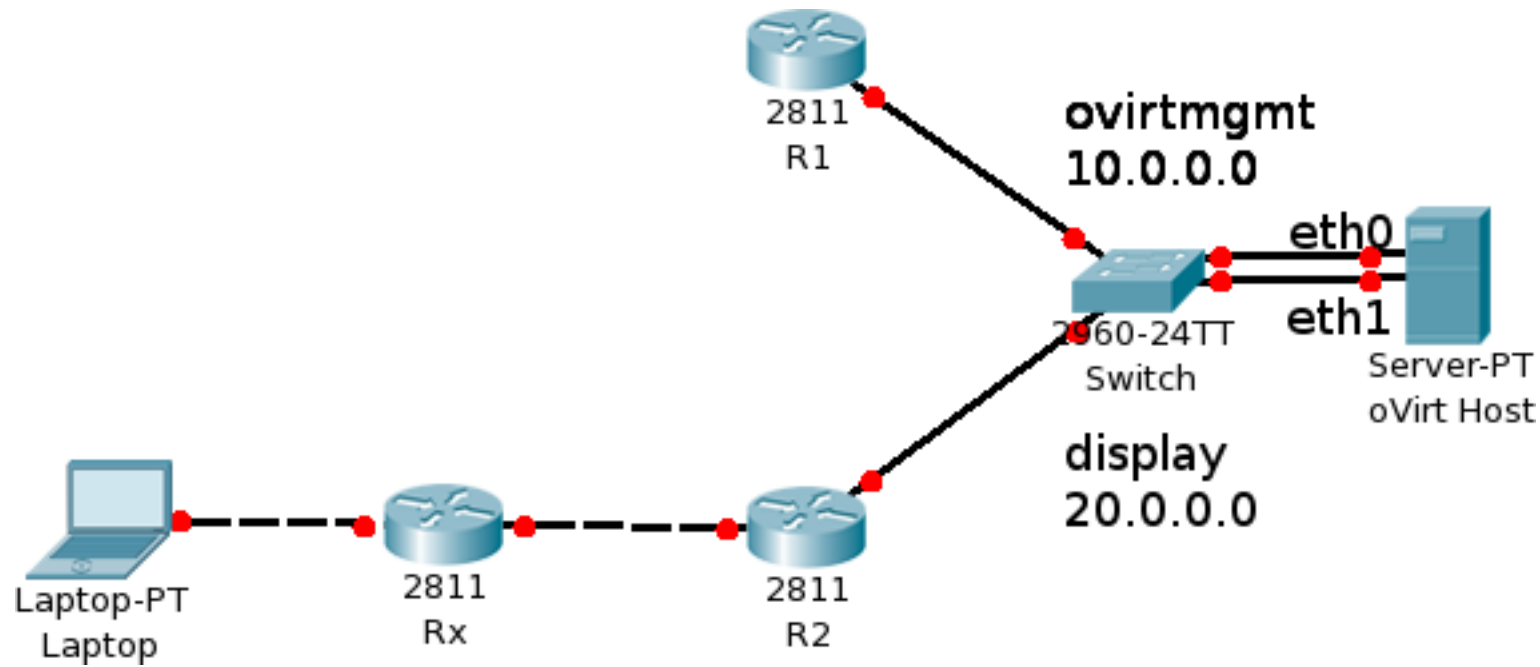
- ***Internal network*** - network that was added directly in oVirt
- ***External network*** - network that is managed by an external network provider and is consumed within oVirt
- ***External network provider*** - an independent network manager which collaborates with oVirt by implementing a predefined API.
- External networks can be discovered in oVirt and then can be used within oVirt for example in VMs.
- User can configure permissions on external networks once they are discovered, like they do for internal networks.

Network Provider API

- GetAllNetworks()
 - Retrieve list of all (external) networks on provider
- CreateNetwork()
 - Create new network on provider and import it
- UpdateNetwork()
 - Edit the network on the provider

- Support different technologies
 - GRE tunnels
 - VXLAN
- Future leverage of
 - Security Groups
 - IPAM
 - L3 capabilities

Multiple /gateways



Architecture Changes in VDSM 3.3

- Configurators based architecture
- Technology oblivious persistence layer

- Network Qos
- Host profiles
- Network Lables
- Private networks
- Cisco, VMFEX, UCS
- Neutron Integration con.
 - Security groups
 - IPAM, floating IP/NAT
- Configurable MAC pool
- SRIOV
- IPv6

oVirt

THANK YOU !

<http://www.ovirt.org>