



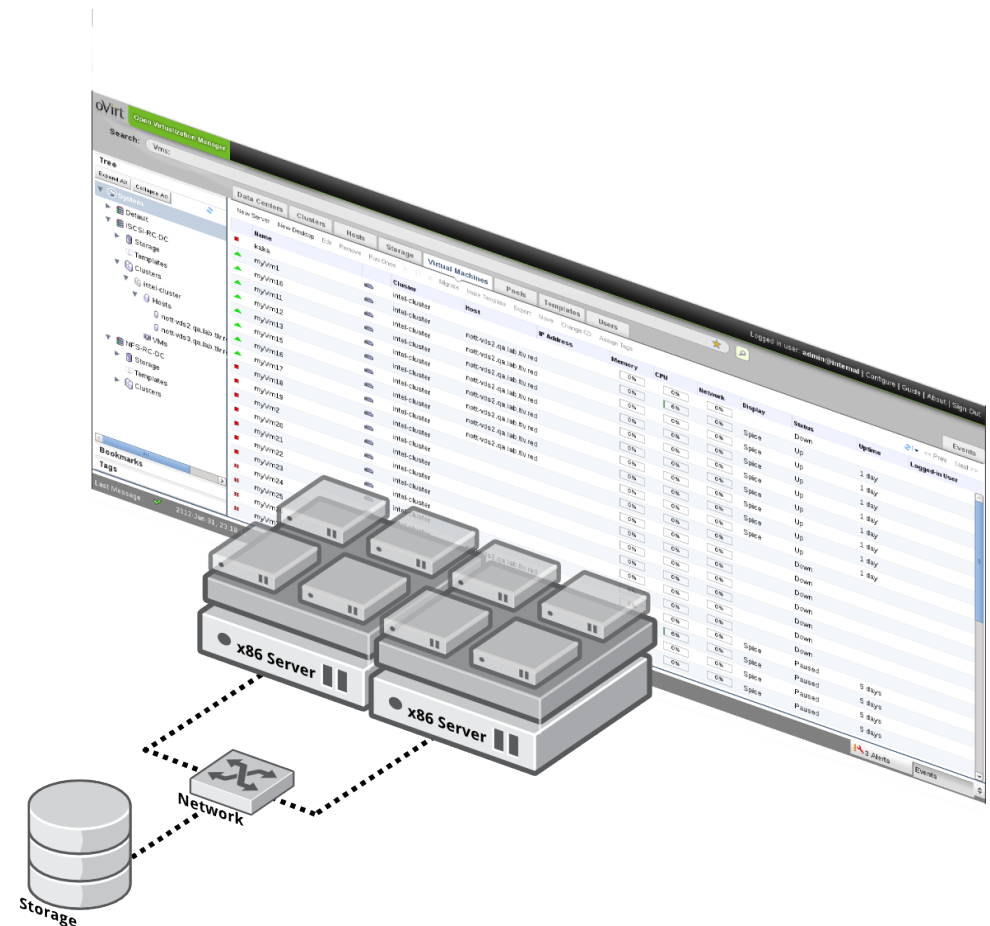
oVirt Introduction

Shanghai 2013

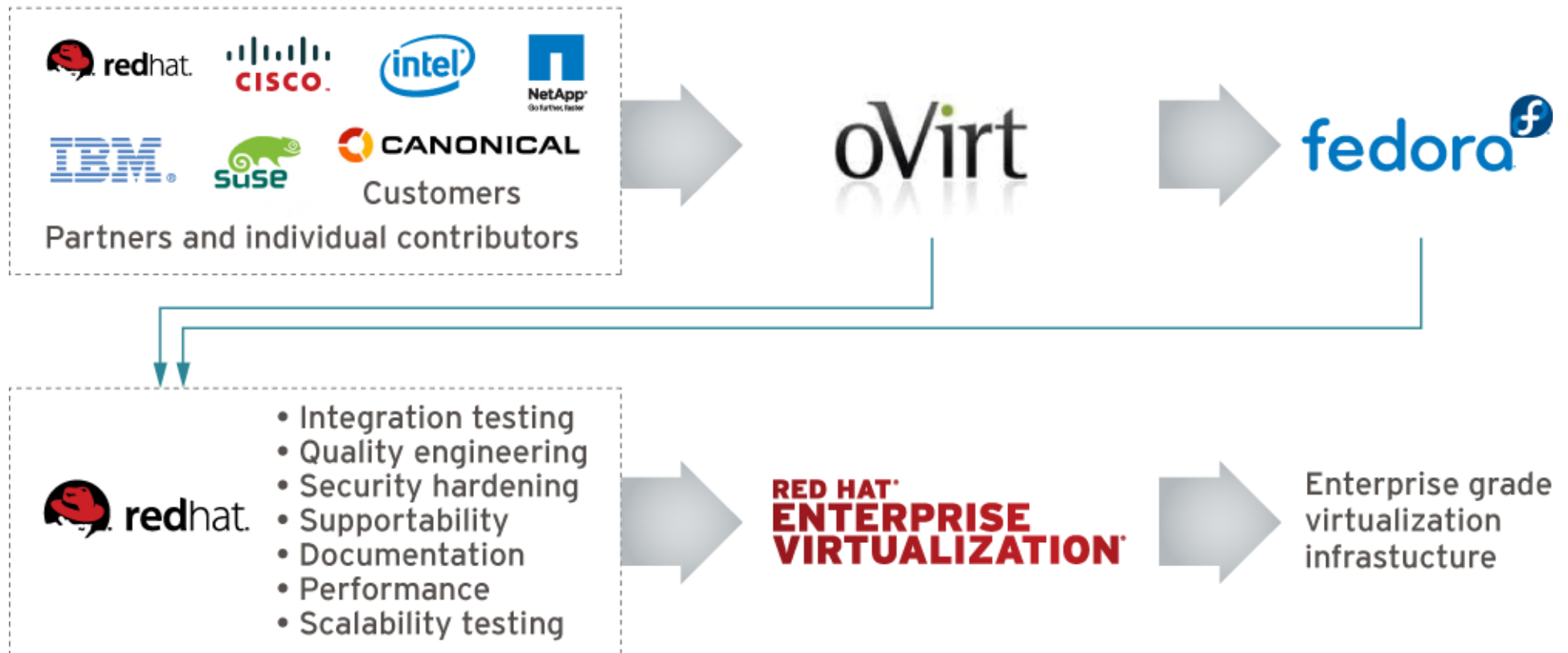
Doron Fediuck
Red Hat

What is oVirt?

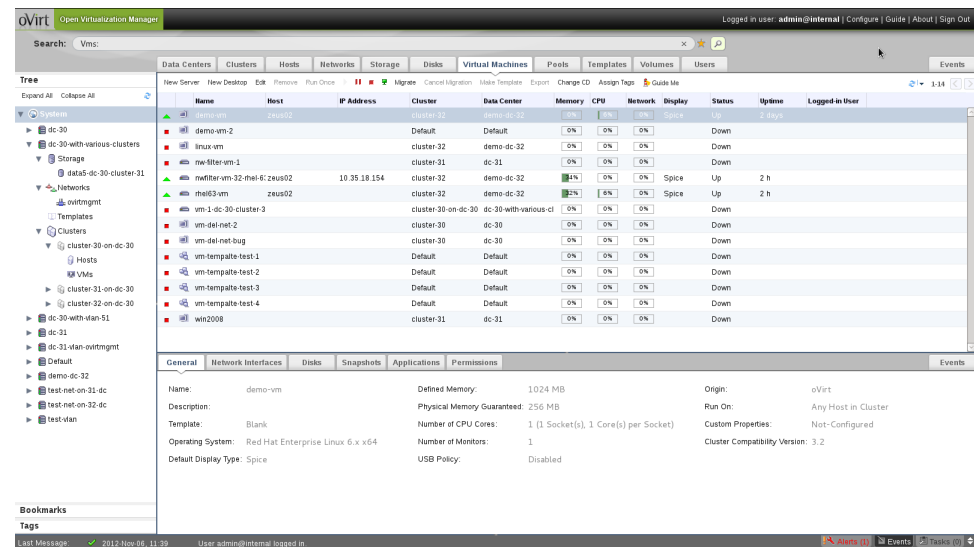
- Large scale, centralized management for server and desktop virtualization
- Based on leading performance, scalability and security infrastructure technologies
- Provides an open source alternative to vCenter/vSphere



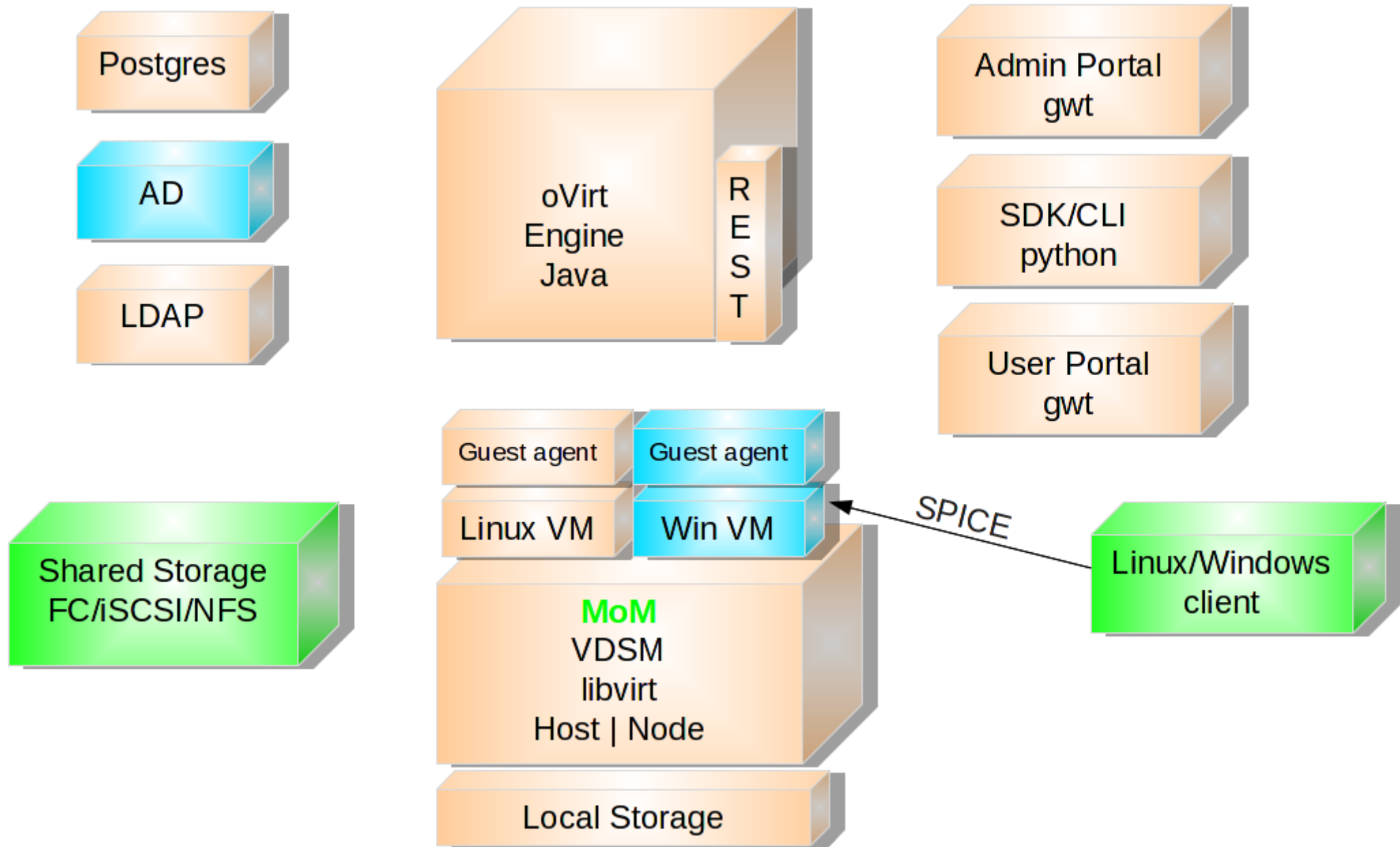
OPEN VIRTUALIZATION MANAGEMENT



- JBoss-based Java application
- Communicates with hypervisor nodes
- Manages VM lifecycle
- Controlled with:
 - Admin Portal
 - User Portal
 - REST API
 - Python SDK
 - Command Line Shell



Overview: architecture



Administration Console



Search: Vms:

- Data Centers
- Clusters
- Hosts
- Storage
- Virtual Machines
- Pools
- Templates
- Users
- Events

Tree

Expand All Collapse All

- System
 - Default
 - ISCSI-RC-DC
 - Storage
 - Templates
 - Clusters
 - intel-cluster
 - Hosts
 - nott-vds2.qa.lab.tlv.redhat.com
 - nott-vds3.qa.lab.tlv.redhat.com
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

New Server New Desktop Edit Remove Run Once Migrate Make Template Export Move Change CD Assign Tags

Name	Cluster	Host	IP Address	Memory	CPU	Network	Display	Status	Uptime	Logged-in User
kaka	intel-cluster			0%	0%	0%		Down		
myVm1	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	6%	0%	Spice	Up	1 day	
myVm10	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm11	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm12	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm13	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm15	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm16	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm17	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm18	intel-cluster			0%	0%	0%		Down		
myVm19	intel-cluster			0%	0%	0%		Down		
myVm2	intel-cluster			0%	0%	0%		Down		
myVm20	intel-cluster			0%	0%	0%		Down		
myVm21	intel-cluster			0%	0%	0%		Down		
myVm22	intel-cluster			0%	0%	0%		Down		
myVm23	intel-cluster			0%	0%	0%		Down		
myVm24	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	
myVm25	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	6%	0%	Spice	Paused	5 days	
myVm26	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	
myVm27	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	

User Portal



Activities Firefox Sat 11:27 en Itamar Heim

oVirt User Portal - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt User Portal

redhat.com https://hateya-fed16.qa.lab.tlv.redhat.com:8443/UserPortal/org.ovirt.engine.ui.userportal.UserPortal/UserPortal.html

oVirt User: admin@internal | Sign out | Guide | About

Basic Extended

kaka myVm1 repro up-vm2

Machine is Down Machine is Ready Machine is Down Machine is Down

kaka

Operating System : Unassigned

Defined Memory : 1GB

Number of Cores : 1 (1 Socket(s), 1 Core(s) per Socket)

Drives :

Disk 1: 10GB

Console : Spice (Edit)

Self Provisioning Portal



Activities Firefox Sat 11:27 en Itamar Heim

oVirt User Portal - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt User Portal

redhat.com https://hateya-fed16.qa.lab.tlv.redhat.com:8443/UserPortal/org.ovirt.engine.ui.userportal.UserPortal/UserPortal.html

oVirt User: admin@internal | Sign out | Guide | About

Basic Extended

New Server | New Desktop | Edit | Remove | Run Once | Change CD | Make Template

Virtual Machines

Templates

Resources

	kaka					
	myVm1					
	repro					
	up-vm2					

General | Network Interfaces | **Virtual Disks** | Snapshots | Permissions | Events | Applications | Monitor

Name:	kaka	Defined Memory:	1024 MB	Origin:	RHEV
Description:		Physical Memory Guaranteed:	512 MB	Run On:	Any Host in Cluster
Template:	fed16	Number of CPU Cores:	1 (1 Socket(s), 1 Core(s) per Socket)	Custom Properties:	Not-Configured
Operating System:	Unassigned	Highly Available:	false		
Default Display Type:	Spice	USB Policy:	Enabled		
Priority:	Low	Resides on Storage Domain:	hateya-ovirt-rc-1		

REST API



```
Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://10.35.1.171/rhev-api
http://10.35.1.171/rhev-api
- <api>
  <link rel="capabilities" href="/rhev-api/capabilities"/>
  <link rel="clusters" href="/rhev-api/clusters"/>
  <link rel="clusters/search" href="/rhev-api/clusters?search={query}"/>
  <link rel="datacenters" href="/rhev-api/datacenters"/>
  <link rel="datacenters/search" href="/rhev-api/datacenters?search={query}"/>
  <link rel="events" href="/rhev-api/events"/>
  <link rel="events/search" href="/rhev-api/events?search={query}"/>
  <link rel="hosts" href="/rhev-api/hosts"/>
  <link rel="hosts/search" href="/rhev-api/hosts?search={query}"/>
  <link rel="networks" href="/rhev-api/networks"/>
  <link rel="roles" href="/rhev-api/roles"/>
  <link rel="storagedomains" href="/rhev-api/storagedomains"/>
  <link rel="storagedomains/search" href="/rhev-api/storagedomains?search={query}"/>
  <link rel="tags" href="/rhev-api/tags"/>
  <link rel="templates" href="/rhev-api/templates"/>
  <link rel="templates/search" href="/rhev-api/templates?search={query}"/>
  <link rel="users" href="/rhev-api/users"/>
  <link rel="groups" href="/rhev-api/groups"/>
  <link rel="domains" href="/rhev-api/domains"/>
  <link rel="vmpools" href="/rhev-api/vmpools"/>
  <link rel="vmpools/search" href="/rhev-api/vmpools?search={query}"/>
  <link rel="vms" href="/rhev-api/vms"/>
  <link rel="vms/search" href="/rhev-api/vms?search={query}"/>
  <system_version revision="428" build="0" minor="6" major="4"/>
- <summary>
  - <vms>
    <total>22</total>
    <active>5</active>
  </vms>
  - <hosts>
    <total>6</total>
    <active>5</active>
  </hosts>
  - <users>
    <total>2</total>
  </users>

```

Add Host

Search: Host:

- Data Centers
- Clusters
- Hosts
- Storage
- Virtual Machines
- Pools
- Templates
- Users

Tree

Expand All Collapse All

- System
 - Default
 - iSCSI-RC-DC
 - Storage
 - Templates
 - Clusters
 - intel-cluster
 - Hosts
 - nott-vds2.qa.lab.tlv.r
 - nott-vds3.qa.lab.tlv.r
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

New Edit Remove Activate Maintenance Configure Local Storage Assign Tags

Name
nott-vds2.qa.lab.tlv.redhat.com
nott-vds3.qa.lab.tlv.redhat.com
nott-vdsa.qa.lab.tlv.redhat.com

New Host

General

Data Center: Default

Host Cluster: Default

Name:

Address:

Root Password:

Override IP tables:

OK Cancel

	Memory	CPU	Network	SpmStatus
8 VMs	25%	0%	0%	SPM
0 VMs	0%	0%	0%	None
0 VMs	0%	0%	0%	None

Power Management



Search: Host:

- Data Centers
- Clusters
- Hosts
- Storage
- Virtual Machines
- Pools
- Templates
- Users

Tree

Expand All Collapse All

- System
 - Default
 - ISCSI-RC-DC
 - Storage
 - Templates
 - Clusters
 - intel-cluster
 - Hosts
 - nott-vds2.qa.lab.tlv.r
 - nott-vds3.qa.lab.tlv.r
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

New Edit Remove Activate Maintenance Configure Local Storage Assign Tags

Name
nott-vds2.qa.lab.tlv.redhat.com
nott-vds3.qa.lab.tlv.redhat.com
nott-vdsa.qa.lab.tlv.redhat.com

New Host

Enable Power Management

Power Management

Address:

User Name:

Password:

Type:

Port:

Slot:

Options:

Please use a comma-separated list of 'key=value' or 'key'

Secure:

	Memory	CPU	Network	SpmStatus
8 VMs	25%	0%	0%	SPM
0 VMs	0%	0%	0%	None
0 VMs	0%	0%	0%	None

Setup Networks: Edit Bond

- Click the pencil icon to edit bond configuration

The screenshot displays the 'Setup Host Networks' window in oVirt. The main interface is divided into three sections: 'Interfaces', 'Assigned Logical Networks', and 'Unassigned Logical Networks'. In the 'Interfaces' section, a bond interface named 'bond0' is shown, which is composed of two slave interfaces, 'eth2' and 'eth3'. A pencil icon next to 'bond0' is highlighted, indicating it is selected for editing. Below the bond name, the configuration is shown as 'Boot Protocol: None' and 'Bond Options: mode=1 miimon=100'. The 'Assigned Logical Networks' section is currently empty, showing 'no network assigned'. The 'Unassigned Logical Networks' section lists several networks, including 'MTU_9000', 'VLAN_MTU_9000', 'MTU_9000 (VLAN)', 'MTU_9000_2', and 'MTU_9000_2'. At the bottom of the window, there are two checkboxes: 'Verify connectivity between Host and Engine' (checked) and 'Save network configuration' (unchecked). A modal dialog box titled 'Edit Bond Interface bond0' is open in the foreground, showing the following configuration fields: 'Bond Name: bond0', 'Bonding Mode: Custom:', and 'Custom mode: mode=1 miimon=100'. The dialog has 'OK' and 'Cancel' buttons at the bottom.

Add Servers or Desktops

- Data Centers
- Clusters
- Hosts
- Networks
- Storage
- Disks
- Virtual Machines**
- Pools
- Templates
- Volumes
- Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6: zeus02	
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

General

Data Center: demo-dc-32

Host Cluster: cluster-32

Host:

Name:

Description:

Based on Template: Blank

Memory Size: 512 MB

Total Virtual CPUs: 1

[Advanced Parameters](#)

Operating System: Unassigned

OK Cancel

General | Network Interfaces

Name: nwfilter-vm-

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Even Windows via Sysprep

Navigation tabs: Data Centers, Clusters, Hosts, Networks, Storage, Disks, Virtual Machines, Pools, Templates, Volumes, Users

Toolbar: New Server, New Desktop, Edit, Remove, Run Once, Migrate, Cancel Migration, Make Template, Export, Change CD, Assign Tags, Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

- General
- Initial Run**
- Console
- Host
- High Availability
- Resource Allocation
- Boot Options
- Custom Properties

General

Time Zone: (GMT-12:00) GMT-12:00

Windows

Domain: []

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General | Network Interfaces

Name: nwfilter-vm-1

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Console Details (SPICE or VNC)

Data Centers Clusters Hosts Networks Storage Disks Virtual Machines Pools Templates Volumes Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6: zeus02	
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

- General
- Initial Run
- Console**
- Host
- High Availability
- Resource Allocation
- Boot Options
- Custom Properties

Protocol:

USB Support:

Smartcard enabled

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General Network Interfaces

Name: nwfilter-vm-1

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Host Aspects

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

Run On:

Any Host in Cluster

Specific

Run/Migration Options:

Run VM on the selected host (no migration allowed)

Allow VM migration only upon Administrator specific request (system will not trigger automatic migration of this VM)

CPU Pinning topology

Format: v#p[_v#p]
Examples:

- 0#0 => pin vCPU 0 to pCPU 0
- 0#0_1#3 => pin vCPU 0 to pCPU 0 and pin vCPU 1 to pCPU 3
- 1#1-4,^2 => pin vCPU 1 to pCPU set 1 to 4, excluding 2

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General | Network Interfaces

Name: nwfilter-vm-

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

High Availability

Data Centers Clusters Hosts Networks Storage Disks Virtual Machines Pools Templates Volumes Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

General

Initial Run Highly Available

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

Priority for Run/Migration queue:

Low

Medium

High

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General Network Interfaces

Name: nwfilter-vm-

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Control Allocated Resources (Disk, Memory)

Navigation tabs: Data Centers, Clusters, Hosts, Networks, Storage, Disks, Virtual Machines, Pools, Templates, Volumes, Users

Toolbar: New Server, New Desktop, Edit, Remove, Run Once, Stop, Start, Migrate, Cancel Migration, Make Template, Export, Change CD, Assign Tags, Guide Me

Name	Host	Status	Uptime	Logged-in User
demo-vm	zeus02	Up	2 days	
demo-vm-2		Down		
linux-vm		Down		
nw-filter-vm-1		Down		
nwfilter-vm-32-rhel-6: zeus02		Up	2 h	
rhel63-vm	zeus02	Up	2 h	
vm-1-dc-30-cluster-3		Down		
vm-del-net-2		Down		
vm-del-net-bug		Down		
vm-tempalte-test-1		Down		
vm-tempalte-test-2		Down		
vm-tempalte-test-3		Down		
vm-tempalte-test-4		Down		
win2008		Down		

New Server Virtual Machine

- General
- Initial Run
- Console
- Host
- High Availability
- Resource Allocation**
- Boot Options
- Custom Properties

Memory Allocation:
Physical Memory Guaranteed:

Storage Allocation: (Available only when a template is selected)
Template Provisioning: Thin Clone

OK Cancel

General | Network Interfaces

Name: nwfilter-vm-32-rhel-6: zeus02
Description:
Template: Blank
Operating System: Red Hat Enterprise Linux 6
Default Display Type: Spice
Priority: Low

Origin: oVirt
Run On: Any Host in Cluster
Custom Properties: Not-Configured
Cluster Compatibility Version: 3.2

Boot Devices

- Data Centers
- Clusters
- Hosts
- Networks
- Storage
- Disks
- Virtual Machines
- Pools
- Templates
- Volumes
- Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6: zeus02	
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

General

Initial Run: First Device

Console: Second Device

Host: Attach CD

High Availability

Resource Allocation

Boot Options

kernel path

initrd path

kernel parameters

Custom Properties

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General | Network Interfaces

Name: nwfilter-vm-

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Advanced Options via Custom Properties

Manager

Logged in user: admin@internal | [Configure](#) | [Guide](#) | [About](#)

Data Centers Clusters Hosts Networks Storage Disks Virtual Machines Pools Templates Volumes Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6: zeus02	
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
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vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

New Server Virtual Machine

- General
- Initial Run
- Console
- Host
- High Availability
- Resource Allocation
- Boot Options
- Custom Properties**

sndbuf	<input type="text"/>	+ -
sap_agent	true	+ -
vhost	<input type="text"/>	+ -
Please select a key...		+ -

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

General Network Interfaces

Name: nwfilter-vm-1

Description:

Template: Blank

Operating System: Red Hat Ent

Default Display Type: Spice

Priority: Low

Origin: oVirt

Run On: Any Host in Cluster

Custom Properties: Not-Configured

Cluster Compatibility Version: 3.2

Setup Networks: Dialog

● **Setup Host Networks**

Drag to make changes

Interfaces	Assigned Logical Networks	Unassigned Logical Networks
<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 bond0 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 eth1 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 eth2 </div>	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ NOVМ_VLAN_MTU_5 (VLAN 500) </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ VLAN_MTU_5000 (VLAN 222) vm </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ VLAN_MTU_5000_2 (VLAN 52) vm </div>	<div style="background-color: #444; color: white; padding: 5px; text-align: center; font-weight: bold;">Required</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ NON_VM_MTU_5000 </div> <div style="background-color: #444; color: white; padding: 5px; text-align: center; font-weight: bold;">Non Required</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ NON_VM_MTU_9000 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ NOVМ_VLAN_MTU_9 (VLAN 900) </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ VLAN_MTU_9000 (VLAN 9) vm </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ▲ VLAN_MTU_9000_2 (VLAN 92) vm </div>
<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 bond1 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 eth3 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> 🔌 eth4 </div>	<div style="border: 1px dashed gray; padding: 10px; width: 100%;">no network assigned</div>	
<div style="border: 1px solid #ccc; padding: 5px;"> 🔌 eth0 </div>	<div style="border: 1px solid #ccc; padding: 5px;"> ▲ ovirtmgmt 🔥 vm </div>	

Verify connectivity between Host and Engine ?

 Save network configuration ?

OK
Cancel

Controlling resources: Quota

Virtual CPUs

Used by Others Used by You Free

Quota Summary
11% 11%

Hide Quota Distribution

Student-quota
25% 25%

Gold-quota
0%

Staff-quota
0%

Storage

Used by Others Used by You Free

Quota Summary
24%

Hide Quota Distribution

Student-quota
15%

Gold-quota
0%

Staff-quota
Exceeded

Total Size: 1GB
Number of Snapshots: 2
Total Size of Snapshots: <1GB

Memory

Used by Others Used by You Free

Quota Summary
Unlimited

Hide Quota Distribution

Student-quota
25% 25%

Gold-quota
Unlimited

Staff-quota
0%

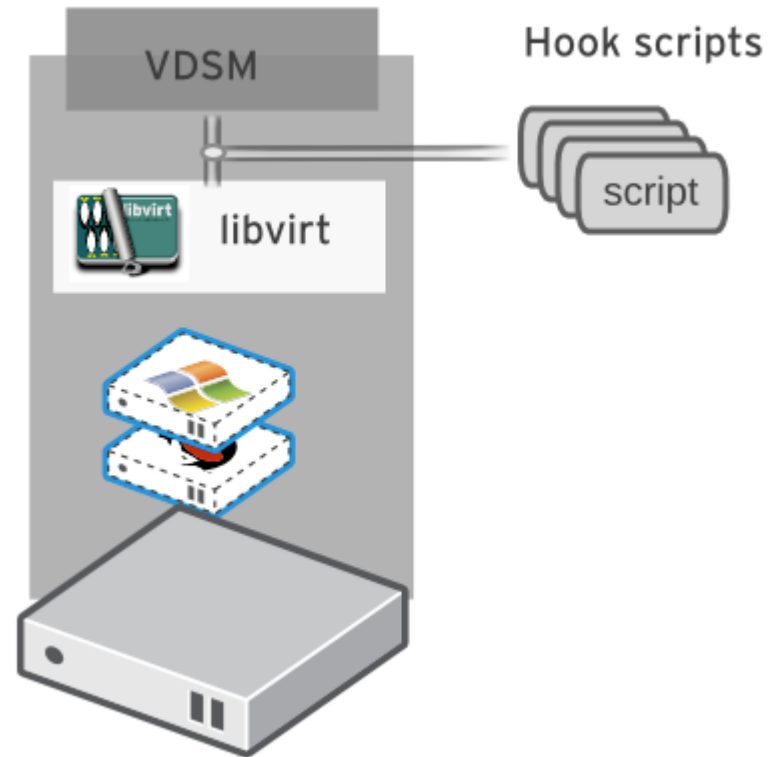
Virtual Machines' Disks & Snapshots

Description	Disks	Virtual Size	Actual Size	Snapshots
vm1	0	0GB	0GB	0
vm-pool-2	1	1GB	0GB	2

Quota 2048MB

Total usage	50%	1024MB
Used by You	25%	512MB
Used by Others	25%	512MB
Free	50%	1024MB

- “Hook” mechanism for customization
 - Allows administrator to define scripts to modify VM operation
 - eg. Extend or modify VM configuration

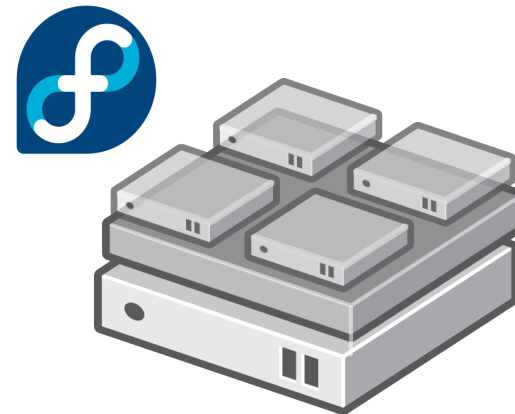


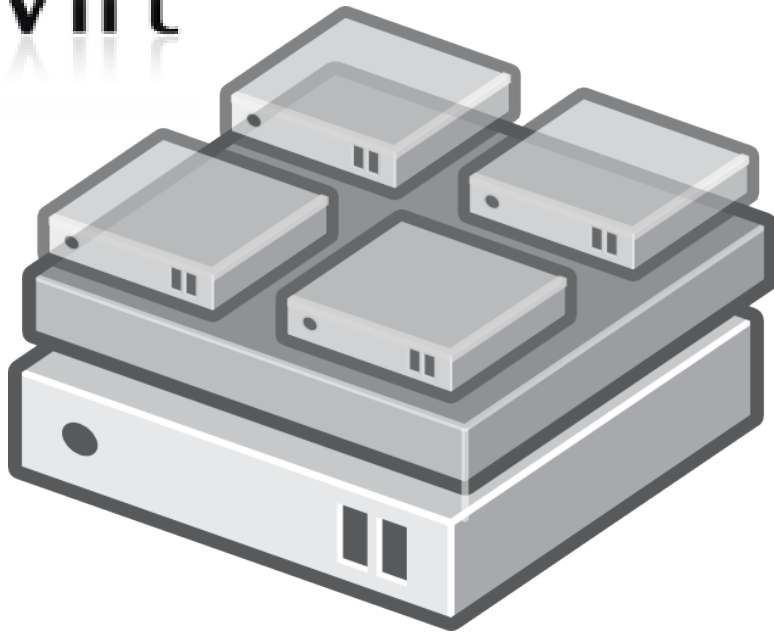
Hooks

- Hook scripts are called at specific VM lifecycle events
 - VDSM (management agent) Start
 - Before VM start
 - After VM start
 - Before VM migration in/out
 - After VM migration in/out
 - Before and After VM Pause
 - Before and After VM Continue
 - Before and After VM Hibernate
 - Before and After VM resume from hibernate
 - Before and After VM set ticket New in 3.1
 - On VM stop
 - On VDSM Stop
- Hooks can modify a virtual machines XML definition before VM start
- Hooks can run system commands – eg. Apply firewall rule to VM

Full Host

- Flexible
- Add monitoring agents, scripts etc.
Leverage existing infrastructure.
- Hybrid mode capable

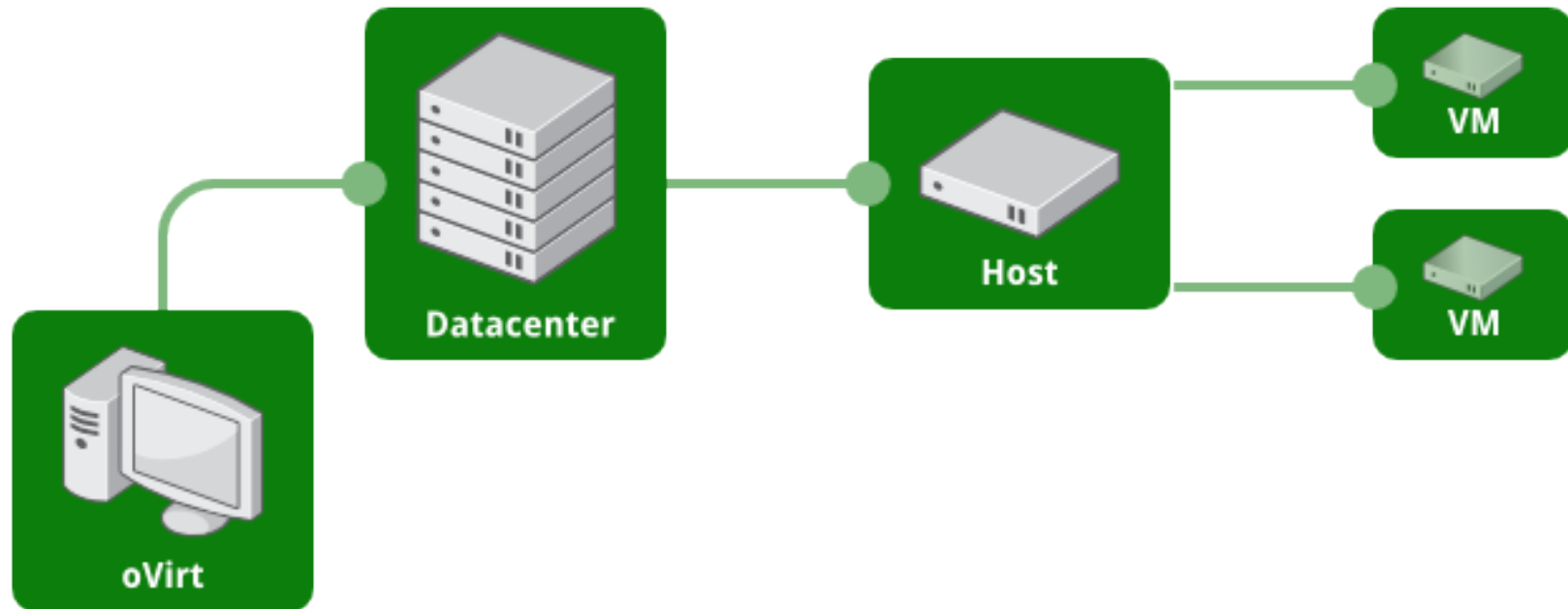




- Standalone hypervisor
 - Small footprint ~ 170MB
 - Customized 'spin' of Fedora + KVM
 - 'Just enough' Fedora to run virtual machines
 - Runs on all RHEL hardware with Intel VT/AMD-V CPUs
 - Easy to install, configure and upgrade
 - PXE boot, USB boot, CD or Hard drive

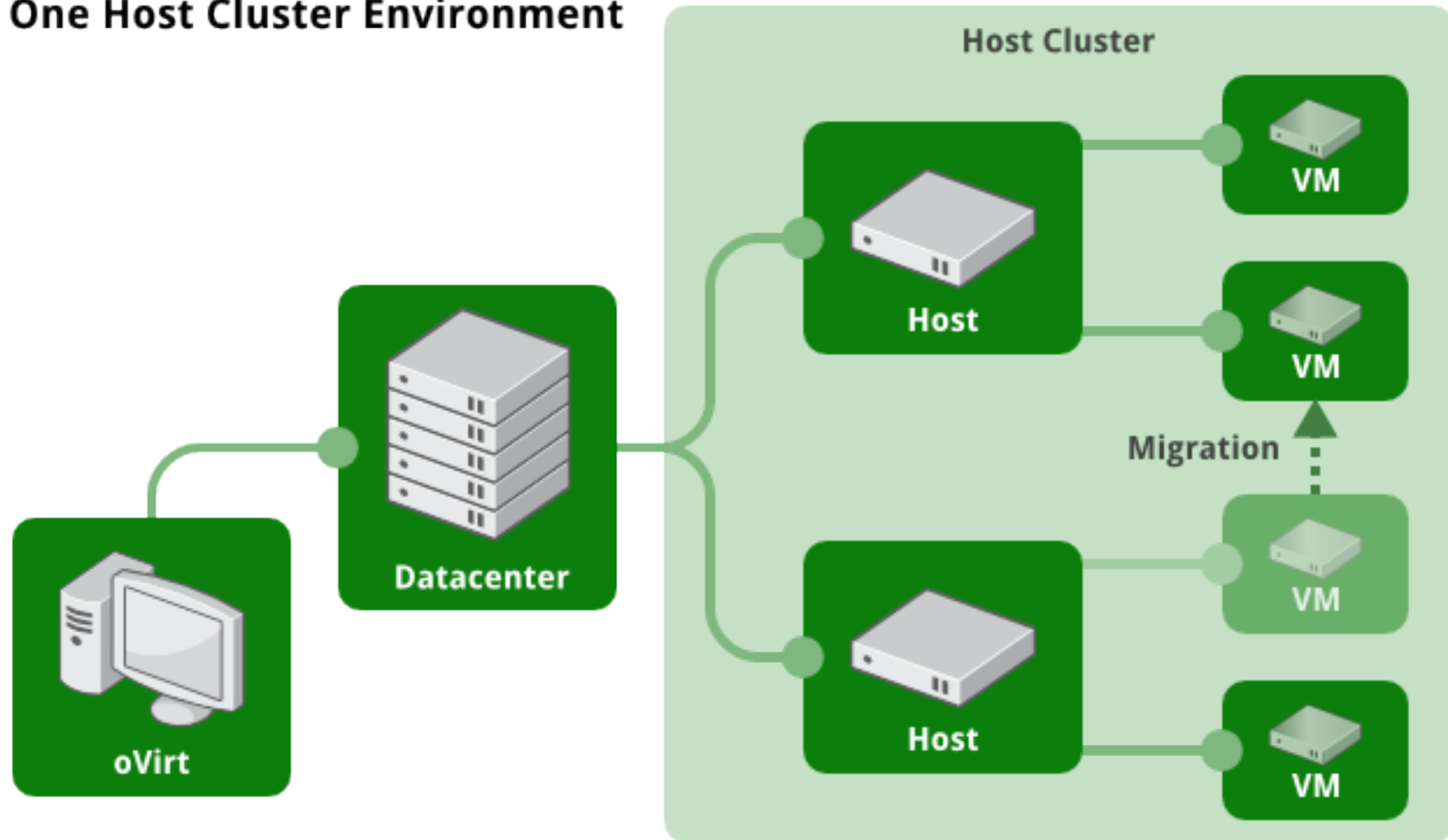
Example 1: One Host Environment

Basic One Host Environment

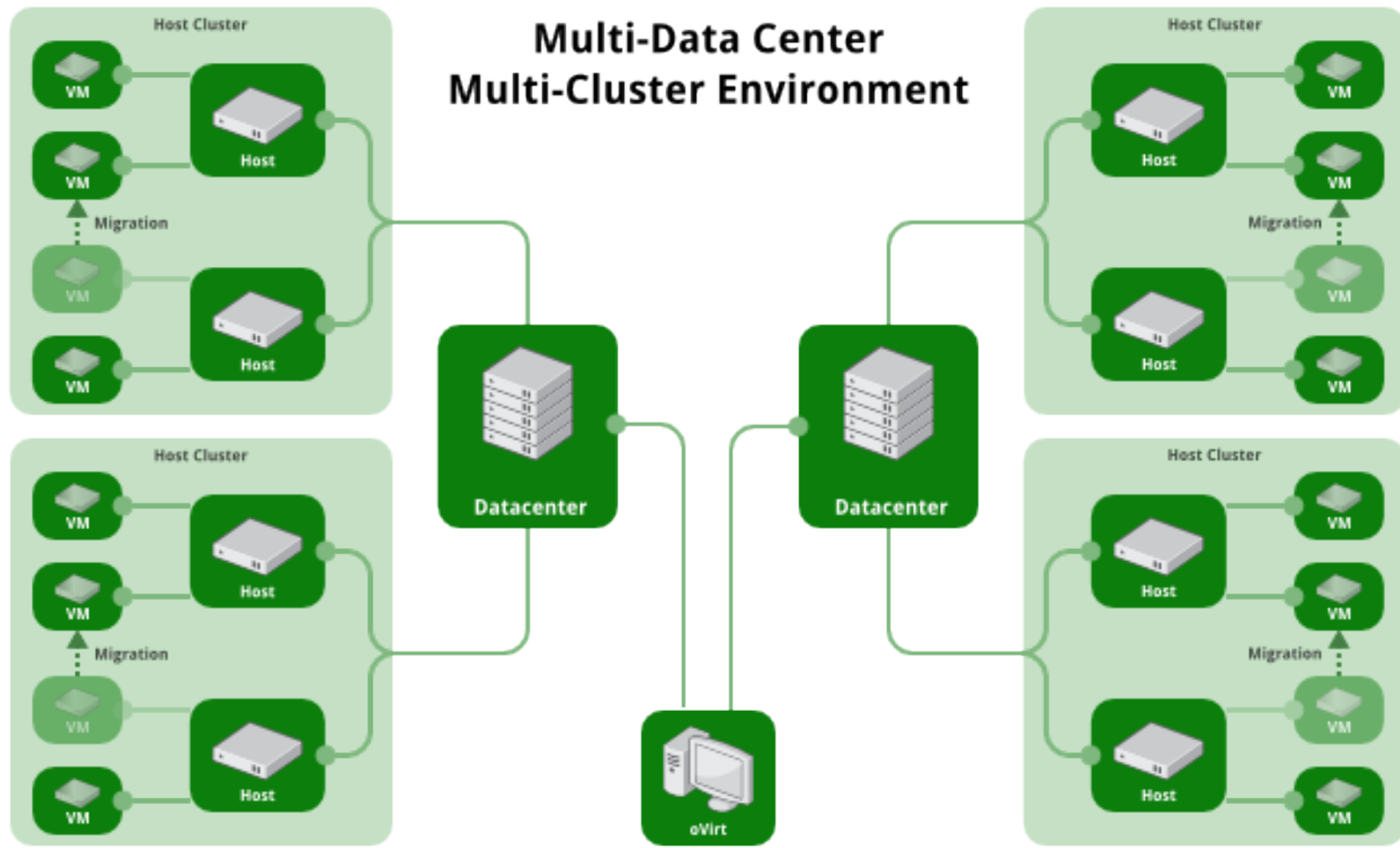


Example 2: Multiple hosts

One Host Cluster Environment



Example 3: Multi-Datacenter/Multi-Host



Features



Feature	Description
Scalability	Extend your virtualization environment by adding more host nodes
High Availability	Restart guest VMs from failed hosts automatically on other hosts
Host Live Migration	Move running VM between hosts with zero downtime
Storage Live Migration	Move running VM between storage domains with zero downtime
Network Filtering	Control network traffic in your virtualization environment
Port Mirroring	Mirror network traffic to a specific VM
Image Management	Template based provisioning, thin provisioning and snapshots
Live Snapshots	Take snapshot of a running virtual machine
Direct LUNs	Being able to attach block devices as volumes directly to virtual machines
Shared/Floating Disks	Share and hotplug disks between virtual machines

Features



Feature	Description
System Scheduler	Continuously load balance VMs based on resource usage/policies
Power Saver	Concentrate virtual machines on fewer servers during off-peak hours
Maintenance Manager	No downtime for virtual machines during planned maintenance windows. Hypervisor patching
Monitoring Tools	For all objects in system – VM guests, hosts, networking, storage etc.
SLA-MOM	A policy engine to help with memory management
Reports	Customized JasperReports and JasperServer reporting tools
OVF Import/Export	Import and export VMs and templates using OVF files
V2V & P2V	Convert Physical servers or VMs from Vmware and Xen
Remote Access	SPICE and VNC protocols for accessing your virtual machines
USB and Smartcards	Passthrough USB and Smartcards to VMs

Features



Feature	Description
Gluster Support	Manage your Gluster volumes and bricks, and integrate them with oVirt
REST API	RESTful web service using HTTP methods to control oVirt objects
Development Tools	Python SDK and CLI Shell

New in 3.2



Infrastructure

The administration portal supports custom user interface (UI) plugins written in JavaScript.
Live Snapshots of a virtual machine can now be created without first having to stop it.
Support has been added for the Windows 8, Windows 8 x64, and Windows 2012.

Storage

Supporting storage live migration. Enables migration of disks between storage without downtime.
Supporting storage domain live upgrade. Enables upgrade from the old to the new V3 domain, online.

Performance

Memory Overcommit Manager (MOM) is enabled by default for hosts. It provides the ability to manage memory ballooning and Kernel Same-page Merging (KSM) of the Linux kernel

Virtualization

Virtual machines can now utilize the host's CPU flags, enables better performance in VM.
Clusters can now be configured to treat host CPU threads as cores for the purposes of virtual machine resource allocation and migration.

User Interface

A new "Network" tab has been added to the main resource tabs
oVirt Engine now retrieves and displays host BIOS information when a host is added to the engine

35+ additional new features listed at: http://www.ovirt.org/OVirt_3.2_release_notes

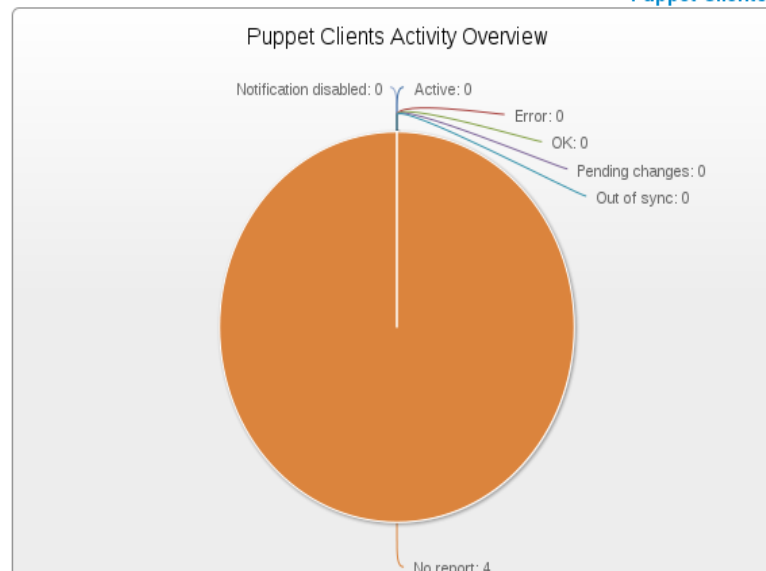
UI-Plugin: Foreman main tab

- Data Centers
- Clusters
- Hosts
- Networks
- Storage
- Disks
- Virtual Machines
- Pools
- Templates
- Volumes
- Users
- Foreman Dashboard

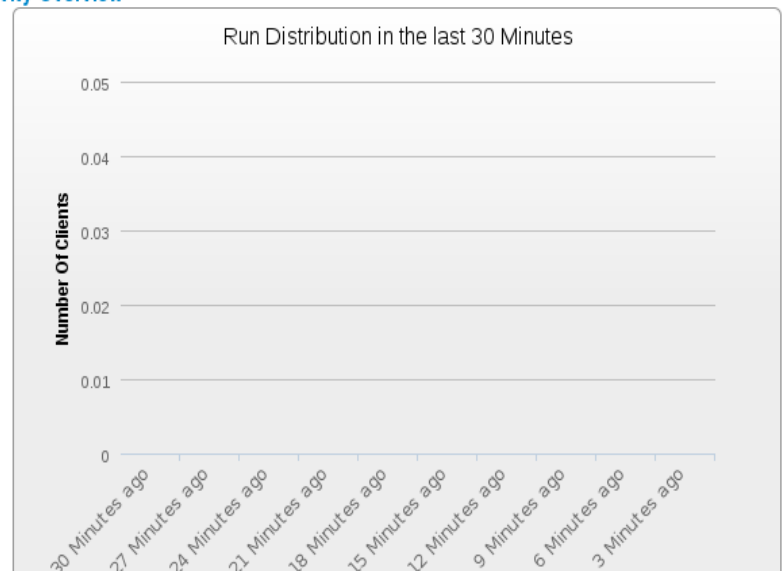
Generated at 20 Dec 13:41

Description	Data
Hosts that had performed modifications without error	0
Hosts in Error State	0
Good Host Reports in the last 35 minutes	0 / 4 hosts (0%)
Hosts that had pending changes	0
Out Of Sync Hosts	0
Hosts With No Reports	4
Hosts With Alerts Disabled	0

Puppet Clients Activity Overview



Run Distribution in the last 30 Minutes



UI-Plugin: oVirt Monitoring sub-tab



The screenshot displays the oVirt Open Virtualization Manager interface. The top navigation bar includes the oVirt logo, the text "Open Virtualization Manager", and the user information "Logged in user: admin@internal | Configure | Guide | About | Sign Out". A search bar is present with the text "Host:". Below the search bar, a series of tabs allows navigation between different system components: Data Centers, Clusters, Hosts (selected), Networks, Storage, Disks, Virtual Machines, Pools, Templates, Volumes, Users, and Events.

The main content area is divided into two sections. The upper section shows a list of hosts under the "Hosts" tab. The table below contains the following data:

Name	Hostname/IP	Cluster	Data Center	Status	Virtual Machines	Memory	CPU	Network	SPM
centos-hyp01.lab.ovid.o.at	10.0.100.42	ovido-local	ovido-local	Up	4	75%	1%	0%	SPM

The lower section, titled "Monitoring Details", contains a table of monitoring services and their outputs:

Service	Output
RHEV CPU Load Check	RHEV OK: cpu ok - 1% used (centos-hyp01.l
RHEV Host Load Check	RHEV OK: cpu.load.avg.5m ok - 0.020 (cento
RHEV Host Status Check	RHEV OK: Hosts ok - 1/1 Hosts with state UF
RHEV KSM Load Check	RHEV CRITICAL: ksm.cpu.current critical - 90:
RHEV Memory Check	RHEV WARNING: memory warning - 75.00%
RHEV Network Status Chec	RHEV CRITICAL: Hosts critical - 1/2 Nics with
RHEV Network Traffic Check	RHEV OK: traffic ok - eth1: 0 Mbit/s eth0: 0 M
RHEV Swap Check	RHEV OK: swap ok - 19.27% used (centos-h

To the right of the monitoring table is a "PNP Performance Graphs" section. It features a "4 Hours" graph titled "Load utilization for 10.0.100.42". The graph shows a fluctuating orange area representing CPU load over time. Below the graph, the following statistics are displayed: "cpu.load.avg.5m", "last: 0.031", "max: 0.138", and "average: 0.07794".

At the bottom of the interface, a status bar shows "Last Message: 2013-Feb-18, 17:58" with a green checkmark, "User admin@internal logged in.", and notification icons for "Alerts (0)", "Events", and "Tasks (0)".

More info at: <https://labs.ovid.o.at/monitoring/wiki/ovirt-monitoring-ui-plugin>

- Obtain from oVirt website
- Live USB - http://wiki.ovirt.org/wiki/OVirt_Live
- Build from source
- Fedora repositories
 - yum install ovirt-engine
 - engine-setup
 - Add managed hosts

Join the community

- Find bugs, File Them, Correct Them.
- Translate, Write Documentation.
- Design Interfaces, Develop new features
- Share your experiences.

Everyone can make a difference.

- **Website and Repository:**

- <http://www.ovirt.org>
- <http://www.ovirt.org/wiki>
- <http://www.ovirt.org/project/subprojects/>

- **Mailing lists:**

- <http://lists.ovirt.org/mailman/listinfo>

- **IRC:**

- #ovirt on OFTC

oVirt

THANK YOU !

<http://www.ovirt.org>