

oVirt

open your virtual datacenter

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Red Hat Inc.

- What is oVirt?
- Where did it come from?
- Project overview
- What does it do?
- Interesting features
- DEMO

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.

- **Websites, Repository, Bug Tracking:**

- <http://www.ovirt.org>
- <http://www.ovirt.org/project/subprojects/>
- <https://gerrit.ovirt.org/>
- <https://bugzilla.redhat.com/>

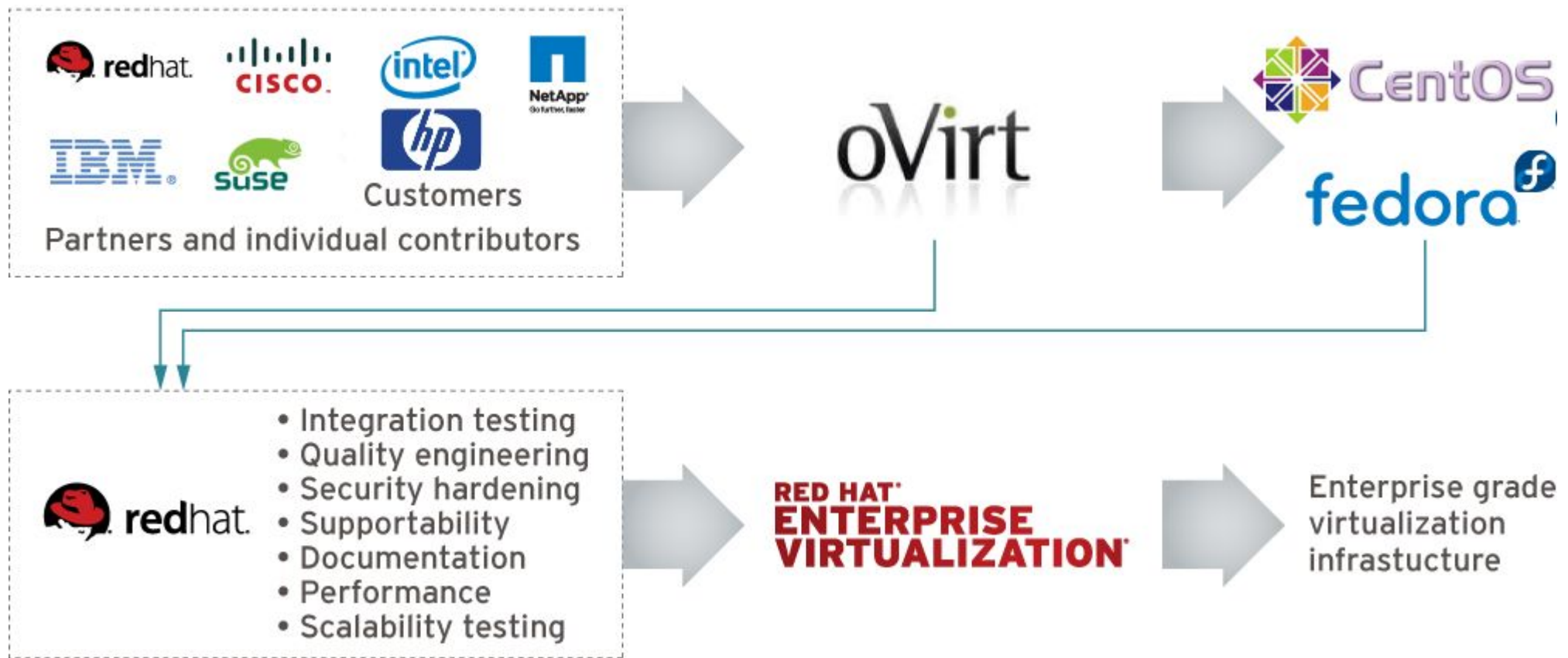
- **Mailing lists:**

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

- **IRC:**

- #ovirt on OFTC

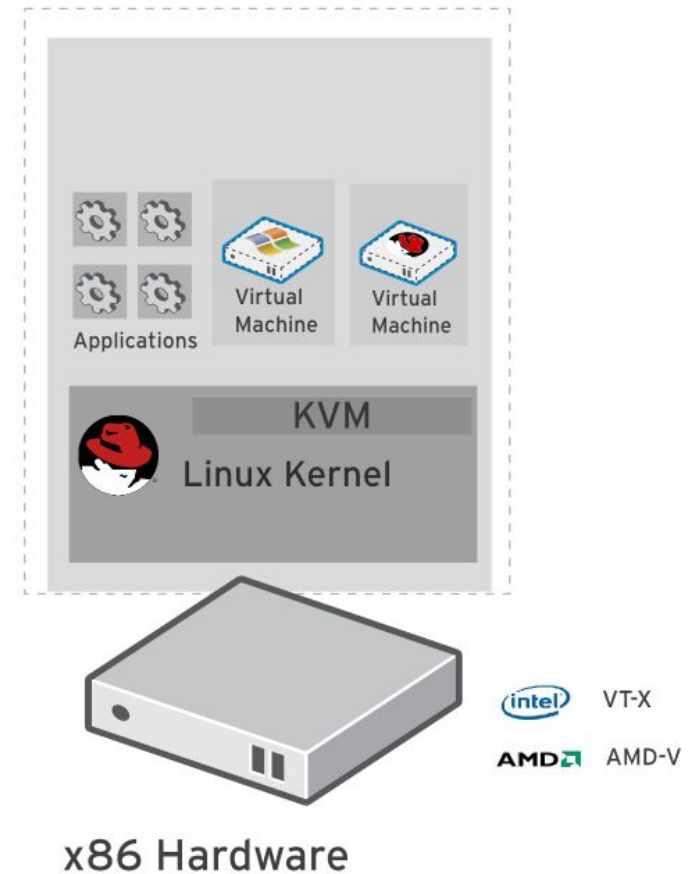
oVirt Who is behind it?



Current List of Upstream Projects

- oVirt-Engine
- VDSM
- oVirt-Node
- oVirt Live
- oVirt Hosted Engine
- oVirt-Engine-SDK
- oVirt-Engine-CLI
- oVirt-Guest-Agent
- oVirt-Image-Uploader
- oVirt-iso-Uploader
- oVirt-Log-Collector
- oVirt-DWH
- oVirt-Reports
- **Incubation Projects**
 - MOM
 - moVirt
- **Test Projects**

- Included in Linux kernel since 2006
-
- Runs Linux, Windows and other operating system guests
-
- Advanced features
 - Live migration
 - Memory page sharing
 - Thin provisioning
 - PCI Pass-through
- KVM architecture provides high “feature-velocity” – leverages the power of Linux



```

/usr/libexec/qemu-kvm -name vm-f16-buildmachine -S -M rhel6.4.0 -cpu Westmere
-enable-kvm -m 2048 -smp 2,sockets=2,cores=1,threads=1 -uuid a8ccdb60-8a42-44f5-9669-d74c3b2eff43
-smbios type=1,manufacturer=Red Hat,product=RHEV
Hypervisor,version=6Server-6.4.0.4.el6,serial=30353036-3837-4247-3831-30394635324C_78:e7:d1:22:46:d8,uuid
=a8ccdb60-8a42-44f5-9669-d74c3b2eff43 -nodefconfig -nodefaults -chardev
socket,id=charmonitor,path=/var/lib/libvirt/qemu/vm-f16-buildmachine.monitor,server,nowait -mon
chardev=charmonitor,id=monitor,mode=control -rtc base=2013-10-08T12:16:16,driftfix=slew -no-shutdown
-device piix3-usb-uhci,id=usb,bus=pci.0,addr=0x1.0x2 -device
virtio-serial-pci,id=virtio-serial0,bus=pci.0,addr=0x4 -drive
if=none,media=cdrom,id=drive-ide0-1-0,readonly=on,format=raw,serial= -device
ide-drive,bus=ide.1,unit=0,drive=drive-ide0-1-0,id=ide0-1-0 -drive
file=/rhev/data-center/f79b0b28-c82f-11e0-8739-78e7d1e48c4c/5bab6470-8825-4e3a-b408-ebcde93678b6/i
mages/4c213cd2-c4d5-441b-a1ac-dfb1a6868699/11b3e132-50a5-481b-b48b-e3b1f2879e69,if=none,id=drive-virt
io-disk0,format=qcow2,serial=4c213cd2-c4d5-441b-a1ac-dfb1a6868699,cache=none,werror=stop,error=stop,a
io=native -device
virtio-blk-pci,scsi=off,bus=pci.0,addr=0x5,drive=drive-virtio-disk0,id=virtio-disk0,bootindex=1 -drive
file=/rhev/data-center/f79b0b28-c82f-11e0-8739-78e7d1e48c4c/5bab6470-8825-4e3a-b408-ebcde93678b6/i
mages/02330fa2-d1ff-48e0-a843-842c2376756f/5a283126-4d27-4eef-86dd-fb538d8d08e4,if=none,id=drive-vi
rtio-disk1,format=qcow2,serial=02330fa2-d1ff-48e0-a843-842c2376756f,cache=none,werror=stop,error=stop
,aio=native -device virtio-blk-pci,scsi=off,bus=pci.0,addr=0x6,drive=drive-virtio-disk1,id=virtio-disk1 -netdev
tap,fd=31,id=hostnet0,vhost=on,vhostfd=32 -device
virtio-net-pci,netdev=hostnet0,id=net0,mac=00:1a:4a:23:12:13,bus=pci.0,addr=0x3,bootindex=2 -chardev
socket,id=charchannel0,path=/var/lib/libvirt/qemu/channels/vm-f16-buildmachine.com.redhat.rhevm.vdsm,ser
ver,nowait -device
virtserialport,bus=virtio-serial0.0,nr=1,chardev=charchannel0,id=channel0,name=com.redhat.rhevm.vdsm
-chardev
socket,id=charchannel1,path=/var/lib/libvirt/qemu/channels/vm-f16-buildmachine.org.qemu.guest_agent.0,ser
ver,nowait -device
virtserialport,bus=virtio-serial0.0,nr=2,chardev=charchannel1,id=channel1,name=org.qemu.guest_agent.0
-chardev spicevmc,id=charchannel2,name=vdagent -device
virtserialport,bus=virtio-serial0.0,nr=3,chardev=charchannel2,id=channel2,name=com.redhat.spice.0 -spice
port=5904,tls-port=5905,addr=10.35.16.4,x509-dir=/etc/pki/vdsm/libvirt-spice,tls-channel=main,tls-channel=di
splay,tls-channel=inputs,tls-channel=cursor,tls-channel=playback,tls-channel=record,tls-channel=smartcard,
tls-channel=usbredir,seamless-migration=on -k en-us -vga qxl -global qxl-vga.ram_size=67108864 -global
qxl-vga.vram_size=67108864

```

oVirt How Does It Look? - oVirt Manager

oVirt Engine Web Administration - Google Chrome

oVirt Engine Web Ad x

https://engine-phx.ovirt.org/ovirt-engine/webadmin/?locale=en_US#hosts-virtual_machines

oVirt OPEN VIRTUALIZATION MANAGER

admin Configure Guide About Feedback

Host: datacenter = jenkins status = up

Data Centers Clusters Hosts Networks Storage Disks Virtual Machines Pools Templates Quota vNIC Profiles Events

New Edit Remove Activate Maintenance Select as SPM NUMA Support Configure Local Storage Power Management Assign Tags Refresh Capabilities 1-7

Name	Hostname/IP	Cluster	Data Center	Status	Virtual Machin	Memory	CPU	Network	SPM
ovirt-srv06	ovirt-srv06.ovirt.org	Jenkins	Jenkins	Up	11	61%	35%	0%	Normal
ovirt-srv04	ovirt-srv04.ovirt.org	Jenkins	Jenkins	Up	10	47%	15%	0%	Normal
ovirt-srv05	ovirt-srv05.ovirt.org	Jenkins	Jenkins	Up	10	59%	19%	0%	Normal
ovirt-srv13	ovirt-srv13.ovirt.org	Jenkins_CentOS	Jenkins	Up	8	29%	26%	0%	SPM
ovirt-srv07	ovirt-srv07.ovirt.org	Jenkins	Jenkins	Up	7	50%	19%	0%	Normal
ovirt-srv12	ovirt-srv12.ovirt.org	Jenkins_CentOS	Jenkins	Up	2	10%	7%	0%	Normal
ovirt-srv14	ovirt-srv14.ovirt.org	Jenkins_CentOS	Jenkins	Up	1	6%	9%	0%	Normal

General Virtual Machines Network Interfaces Host Hooks Permissions Hardware Information Events

Migrate Cancel Migration

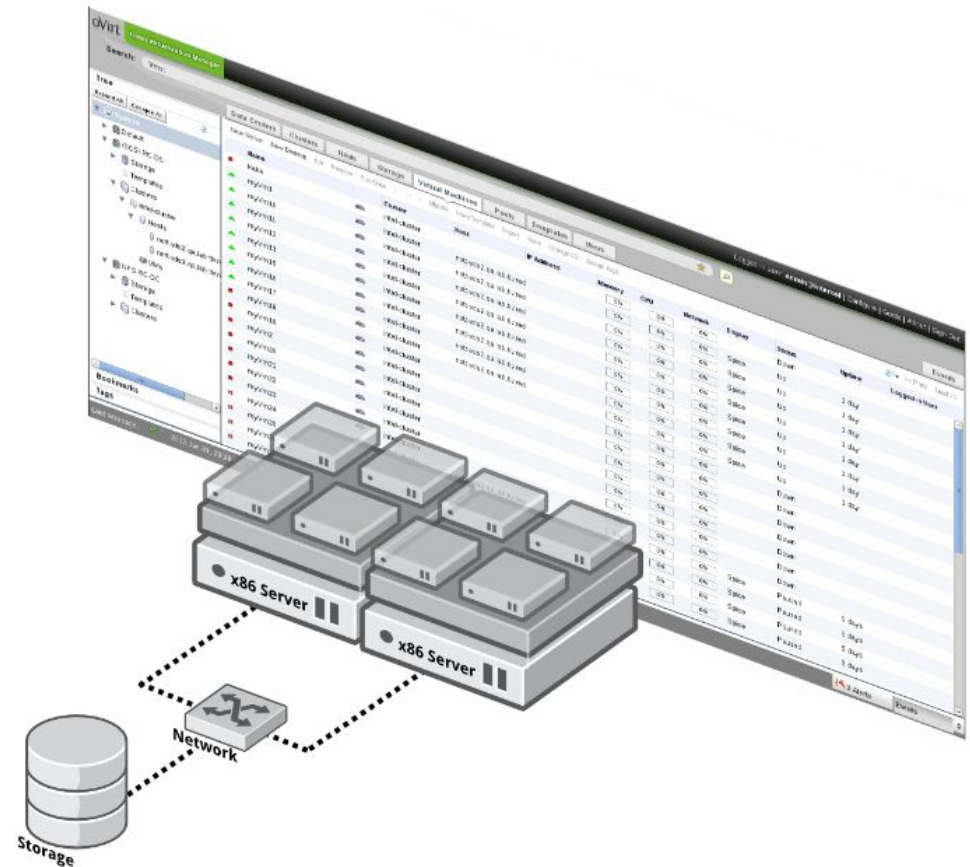
Name	Cluster	IP Addr	FQDN	Memory	CPU	Network	Status	Uptime
el7-vm09-phx-ovirt-org	Jenkins	66....	el7-vm09.p...	41%	0%	0%	Up	247 days
fc21-vm06-phx-ovirt-org	Jenkins	66....	fc21-vm06....	9%	1%	0%	Up	231 days
deb81-vm01-phx-ovirt-org	Jenkins			0%	0%	0%	Up	227 days
fc21-vm07-phx-ovirt-org	Jenkins	66....	fc21-vm07....	14%	0%	0%	Up	167 days
el6-vm10-phx-ovirt-org	Jenkins	66....	el6-vm10.p...	13%	56%	0%	Up	116 days

Last Message: 2016-Mar-16, 11:18 User admin got disconnected from VM backup-phx-ovirt-org. Alerts (0) Events Tasks (0)

2016-Mar-16, 11:18 User admin got disconnected from VM backup-phx-ovirt-org.

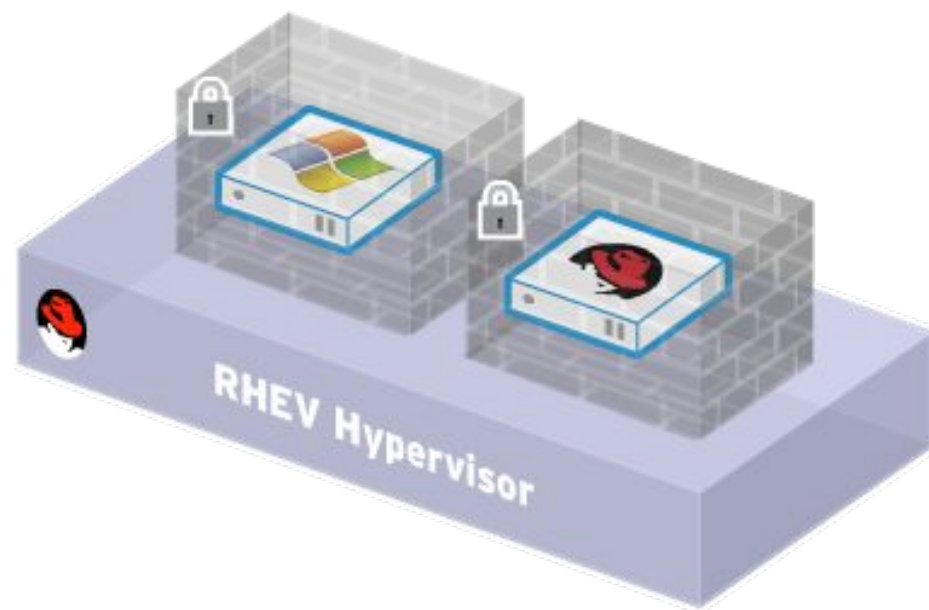
oVirt What Is oVirt?

- Provides large scale, centralized management for server and desktop virtualization
- Based on leading performance, scalability and security infrastructure technologies
- Provide an open source alternative to vCenter/vSphere
- Focus on KVM for best integration/performance
- Focus on ease of use/deployment
- Full featured software targeted to enterprise world

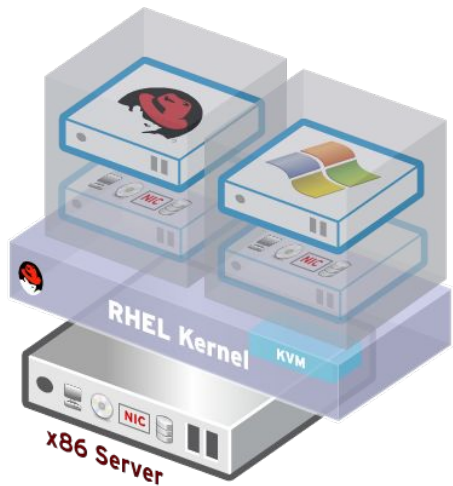


oVirt Security

- oVirt inherits the security features of Linux
 - SELinux security policy infrastructure
 - Provides protection and isolation for virtual machines and host
 - Compromised virtual machine cannot access other VMs or host
- sVirt Project
 - Sub-project of NSA's SELinux community. Provides “hardened” hypervisors
 - Multilevel security. Isolate guests
 - Contain any hypervisor breaches



oVirt How Does It Look? - oVirt Node



oVirt Node Hypervisor

Status
Network
Security
Keyboard
SNMP
CIM
Logging
IPMI
Kdump
Remote Storage
Diagnostics
Performance
oVirt Engine
Puppet
Hosted Engine
Plugins

Hosted Engine Setup

Hosted Engine: False
Engine UM:
Engine Status: Cannot connect to HA daemon, please check the logs
Engine ISO/OVA URL for download: <http://192.168.100.1/centos65.iso>
PXE Boot Engine UM

oVirt Node Hypervisor 3.5-0.999.201505122327.el7.centos

Status
Network
Security
Keyboard
Logging
Kdump
Remote Storage
Monitoring
Diagnostics
Performance
Engine
Hosted Engine
Plugins

Engine Configuration

Engine FQDN (or fqdn:port):
Note: Make sure you have configured NODE FQDN first

Check Engine FQDN? [X]

Optional password for adding Node through Engine
Note: Setting password will enable SSH daemon
Password: _____
Confirm Password: _____

< Save & Register >

Press esc to quit.

COCKPIT root

Sunflower Services Journal Networking Storage Containers Tools

Reading 4.0 KB/s Writing 68.5 KB/s

Create RAID Device Create Volume Group

RAID Devices

RAIDTest (on fedora21.ad.baseos.qe) 2.0 GB

testraider 151.5 MB

Filesystems

Name	Mount Point	Size
/dev/serverroot	/	
/dev/Dockers	/var/lib/docker	
/Docker	/devicemapper	
	/var/lib/docker	
/dev/vda1		
/dev/vdi		

Storage Journal

November 25, 2014

udisksd:	Acquired the name org.freedesktop.UDisks2 on the system message bus
udisksd:	udisks daemon version 2.1.3 starting
smartd:	Monitoring 0 ATA and 0 SCSI devices
smartd:	Try 'smartctl -s on /dev/sda' to turn on SMART features
smartd:	Device: /dev/sda, IE (SMART) not enabled, skip device
smartd:	Device: /dev/sda, [QEMU QEMU HARDDISK 2.1], 107 MB
smartd:	Device: /dev/sda, opened
smartd:	Configuration file /etc/smartmontools/smartd.conf was parsed, found DEVICSCAN, scanning devices

COCKPIT localhost.local... root

Dashboard Cluster oVirt Image Registry

Running VMs VMs in Cluster VDSM Refresh: off Login to Engine

Overview

Hosted Engine

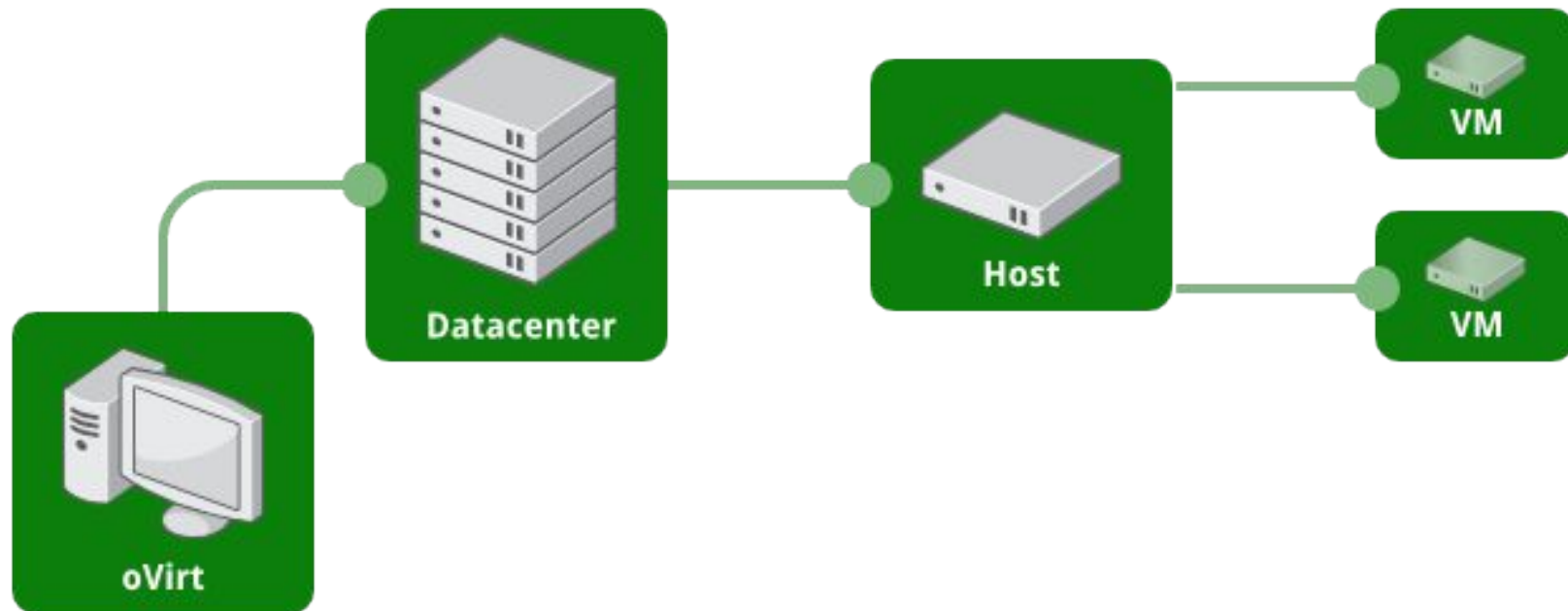
Virtual Machines

VMs available on the engine

Edit vdsm.conf (or go to VDSM Service Management) Save Reload

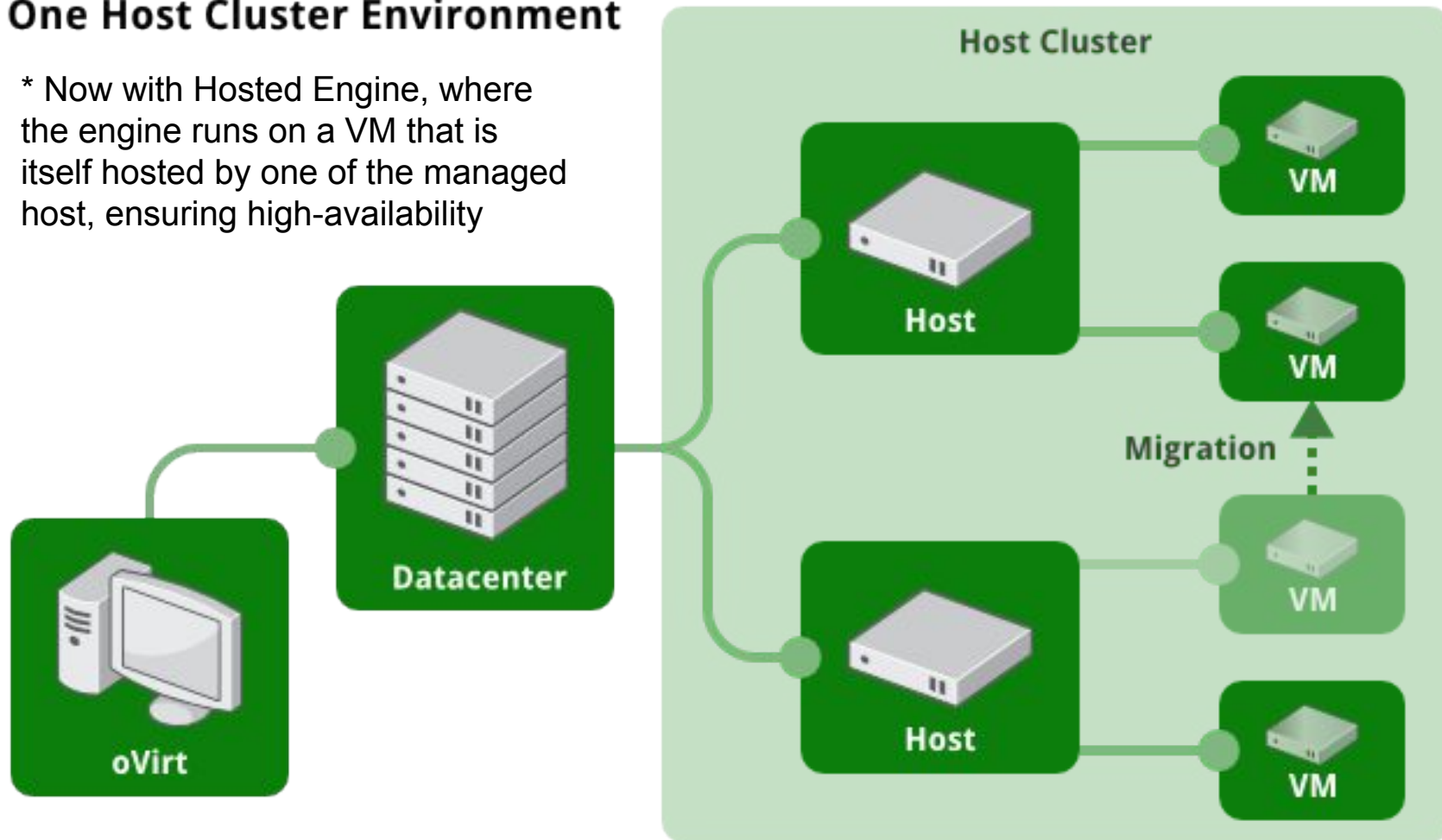
Loading data ...

Basic One Host Environment

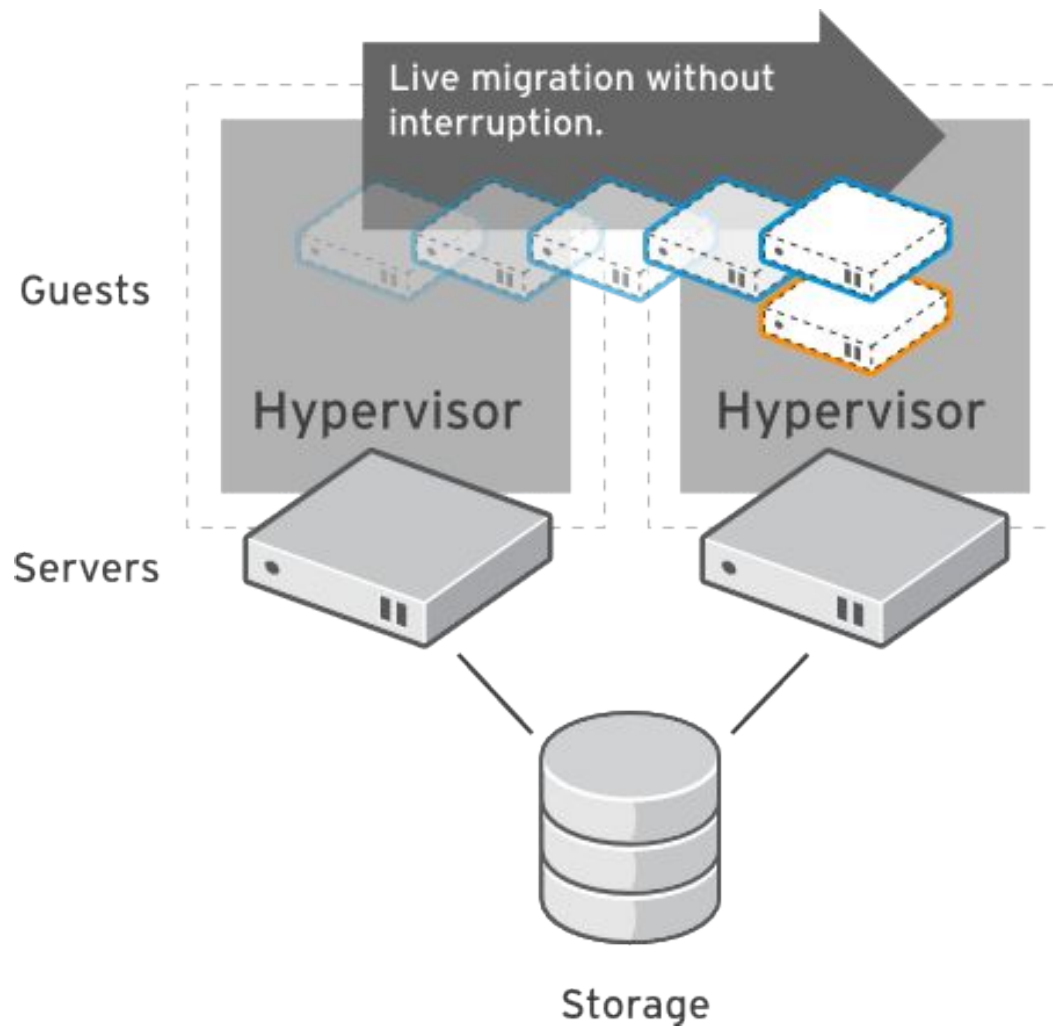


One Host Cluster Environment

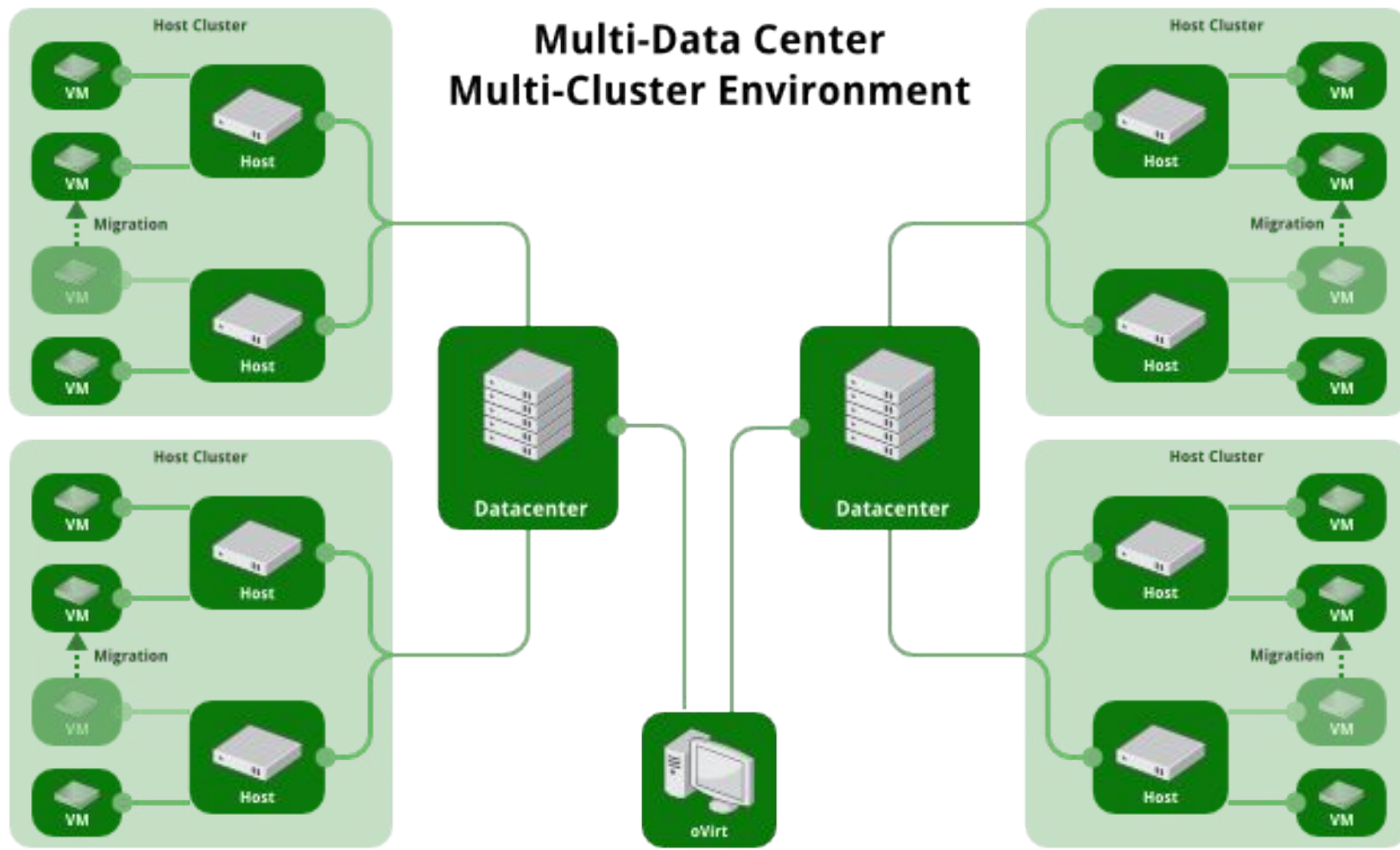
* Now with Hosted Engine, where the engine runs on a VM that is itself hosted by one of the managed host, ensuring high-availability



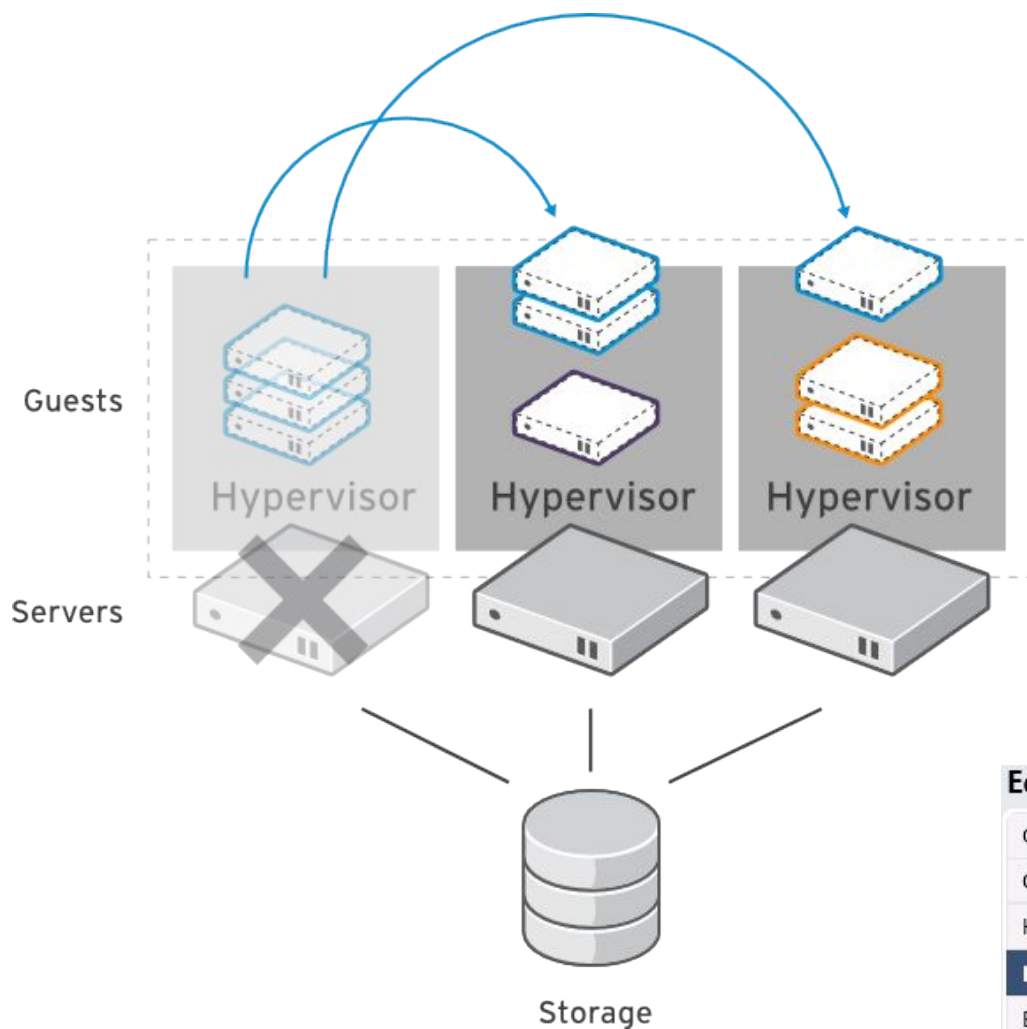
oVirt Live Migration



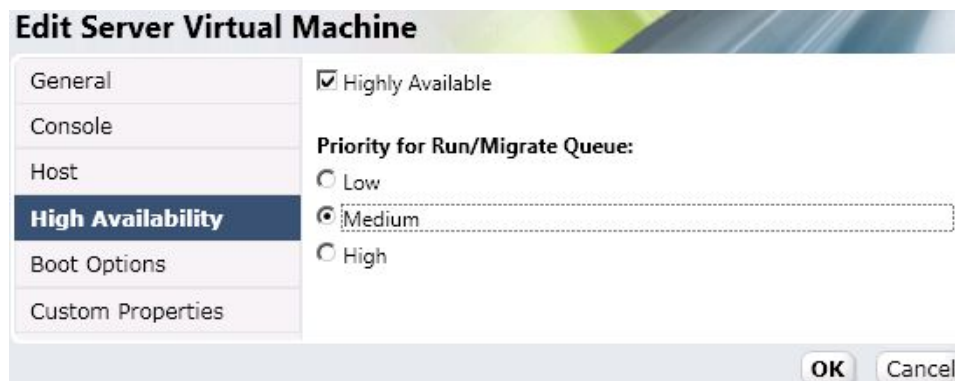
- Dynamically move virtual machines between hosts
 - No service interruption
 - Applications continue to run
- Migrate even I/O intensive workloads such as databases
- Perform hardware maintenance without application downtime
- Dynamically balance workloads between host systems

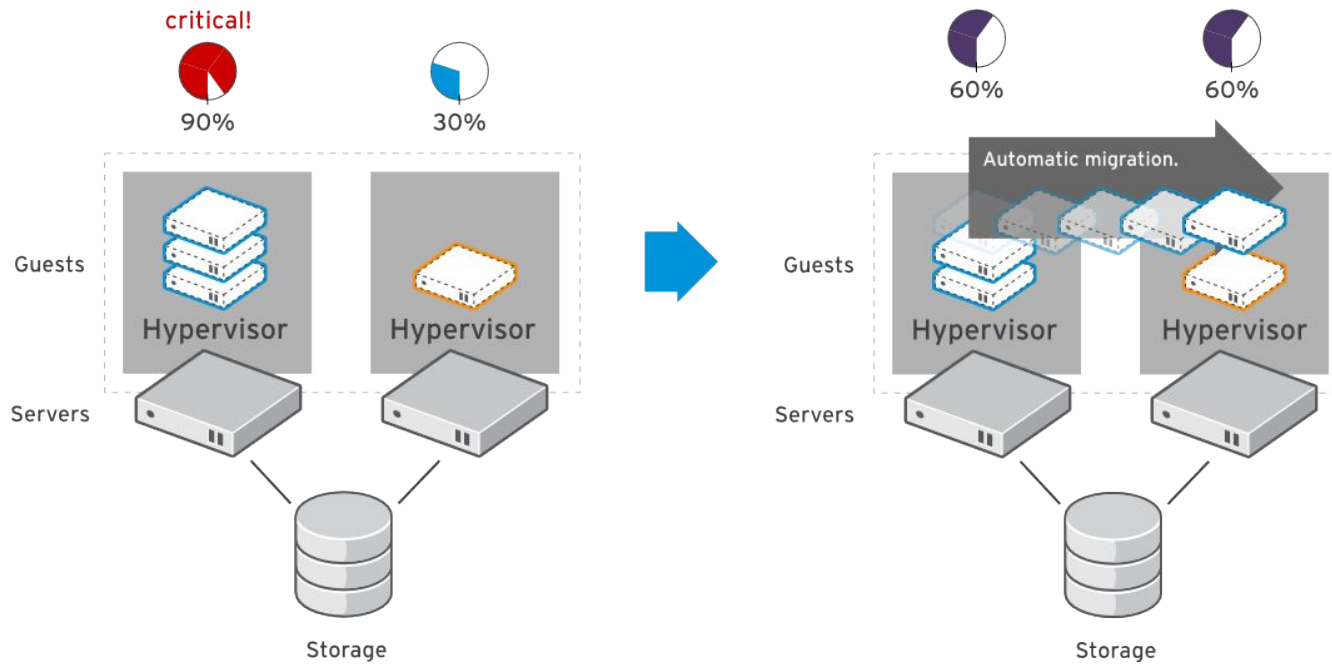


oVirt High Availability



- Build a highly available enterprise infrastructure
- Continually monitor host systems and virtual machines
- Automatically restart virtual machines in case of host failure
 - Restart virtual machine on another node in the cluster
- Use live migration to “fail-back” a VM to it's original host when the server is restored

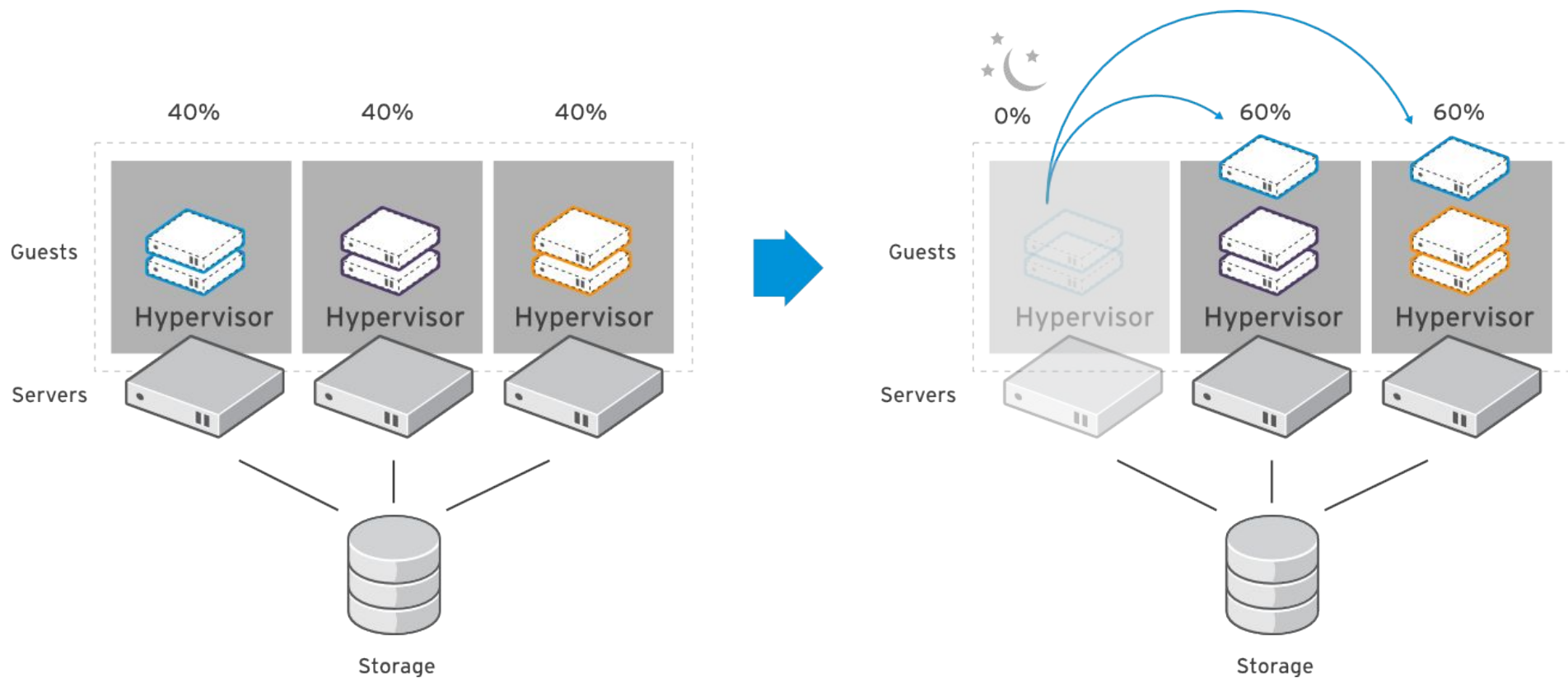




- Dynamically balance workloads in the data center.
- Automatically live migrate virtual machines based on resources
- Define custom policies for distribution of virtual machines

Maintain consistent resource usage across the enterprise data center

oVirt Power Saver



- Define policies to optimize workload on a fewer number of servers during “off-peak” hours
-

- **Simplicity**
- **Stability**
- **Functionality**

- Installation
 - `sudo yum install -y ovirt-engine`
 - `sudo engine-setup`
- Varied user interaction mechanisms
 - Intuitive web interface
 - Python CLI
 - Python/Java SDK
- oVirt Node
- Configuration
 - One place, single utility

- Involvement of big companies
 - RHEV is based on oVirt
 - IBM, Netapp, Cisco etc.
- Open governance model - Merit based
- Regular release schedule
 - Well known release schedule
 - Stabilization periods
 - Community test days
- CI
- Active users community
 - Deployed in production, Alter Way

Search: Vms:

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

Events

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

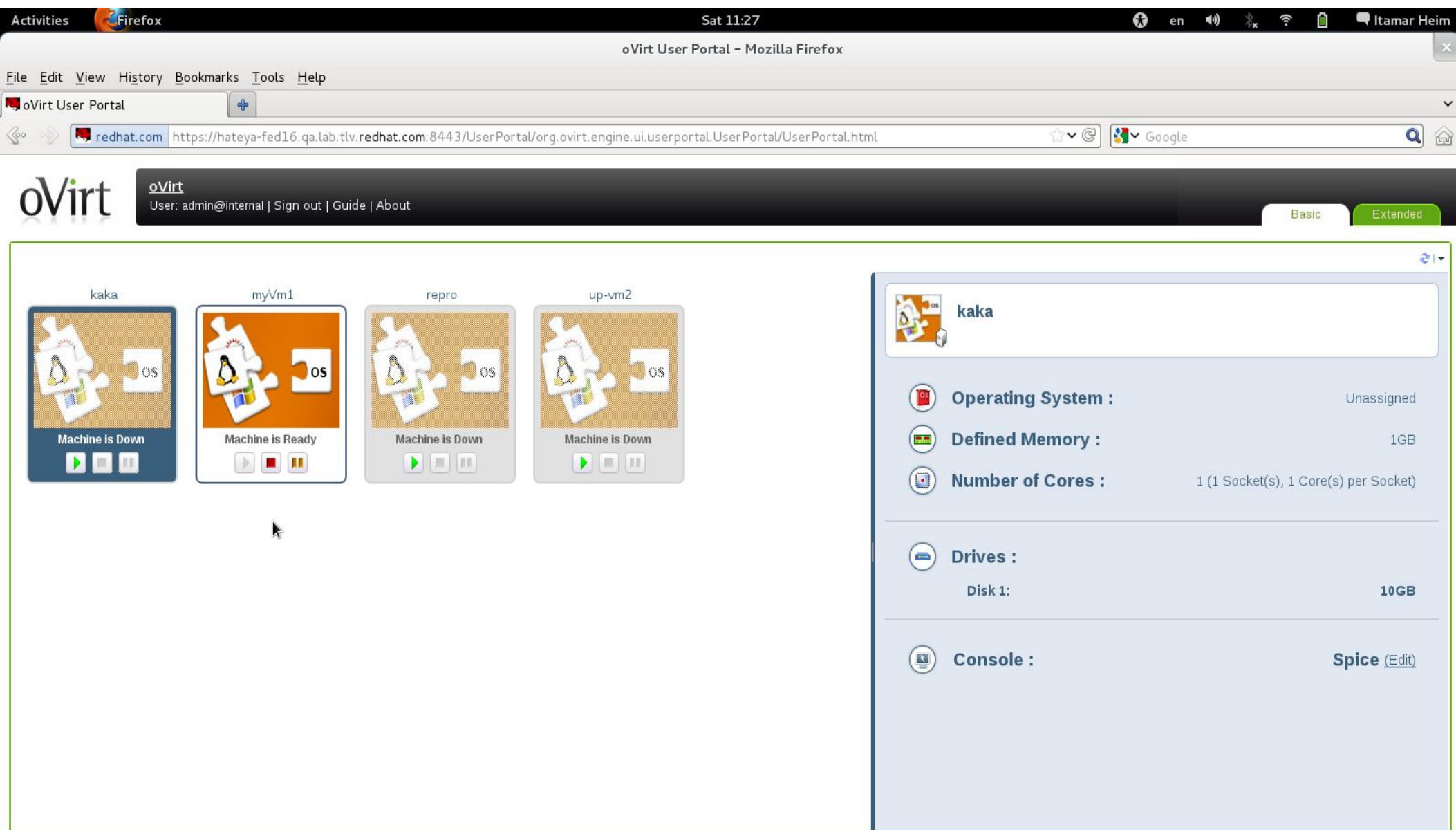
Name	Cluster	Host	IP Address	Memory	CPU	Network	Display	Status	Uptime	Logged-in User
kaka	intel-cluster			0%	0%	0%		Down		
myVm1	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	6%	0%	Spice	Up	1 day	
myVm10	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm11	intel-cluster	nott-vds2.qa.lab.tlv.red		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	

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

oVirt 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 Google

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

Operating System : Unassigned

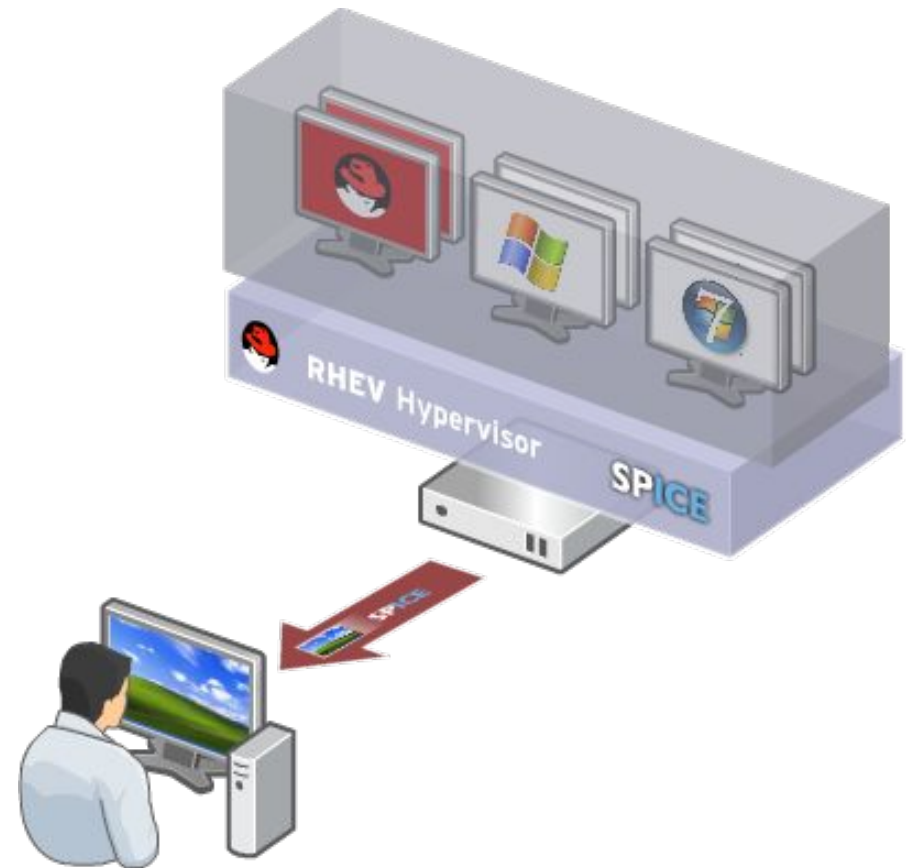
Defined Memory : 1GB

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

Drives :
Disk 1: 10GB

Console : Spice (Edit)


- Centralized management, security and policy enforcement
- Virtual desktops with user experience of a physical PC
- Multiple monitors
- HD-quality video
- Bi-directional audio/video for VoIP or video-conferencing
- Smartcard support
- USB support
- Industry-leading density of virtual desktops/server



- Creating the proxy
- Listing all collections
- Listing collection's methods.
- Querying collection with oVirt search engine.
- Querying collection by custom constraint.
- Querying collection for specific resource.
- Accessing resource methods and properties.

```
#create proxy
api = API(url='http://localhost:8080', username='user@domain', password='password')

api.
```



```
api.vms.
```




```
#list by query
vms = api.vms.list(query = 'name=python_vm')

#search vms by property constraint
vms = api.vms.list(memory=1073741824)

#get by constraints
vm = api.vms.get(id = '02f0f4a4-9738-4731-83c4-293f3f734782')

vm.start
```



- Accessing resource properties and sub-collections.
- Accessing sub-collection methods.
- Querying sub-collection by custom constraint.
- Retrieving sub-collection resource.
- Accessing sub-collection resource properties and methods.

```
vm.n
```

```
  name
```

```
  #units resource
```

```
  nics
```

```
vm.nics.
```

```
  add(nic)
```

```
nics = vm.nics.list(interface='e1000')
```

```
nic = vm.nics.get(name='eth0')
```

```
nic.u
```

```
  update()
```

AVAILABLE COMMANDS

* action	execute an action on an object
* cd	change directory
* clear	clear the screen
* connect	connect to a RHEV manager
* console	open a console to a VM
* create	create a new object
* delete	delete an object
* disconnect	disconnect from RHEV manager
* exit	quit this interactive terminal
* getkey	dump private ssh key
* help	show help
* list	list or search objects
* ping	test the connection
* pwd	print working directory
* save	save configuration variables
* set	set a configuration variable
* show	show one object
* status	show status
* update	update an object

```
(oVirt cli) > help connect
```

USAGE

```
connect  
connect <url> <username> <password>
```

DESCRIPTION

Connect to a RHEV manager. This command has two forms. In the first form, no arguments are provided, and the connection details are read from their respective configuration variables (see 'show'). In the second form, the connection details are provided as arguments.

The arguments are:

- * url - The URL to connect to.
- * username - The user to connect as. Important: this needs to be in the user@domain format.
- * password - The password to use.

oVirt Reports

The screenshot displays the oVirt Reports web interface. At the top left is the oVirt logo and the word "Reports". A search bar is located to the right of the logo. In the top right corner, the user is logged in as "ovirt-admin" with a "Log Out" link. Below the header is a navigation bar with "View" and "Manage" dropdown menus. On the left side, there is a "Folders" sidebar with a tree view showing the following structure: root, Organizations, oVirt Reports, Reports (selected), Executive (selected), Inventory, Service Level, Trend, Resources, temp, Themes, default, and ovirt-reports-them. The main content area is titled "Repository" and includes a "Sort By: Name | Modified Date" option. Below the title are buttons for "Run", "Edit", "Open", "Copy", "Cut", "Paste", and "Delete". The repository contains four reports:

Report Name	Description	Type	Modified Date
Active Virtual Machines by OS (BR18) <i>/organizations/ovirtreports/Reports/Executive/active_vms_by_os_br18</i>	The report contains comparative measurements number of running virtual machines and OS usage in for a selected cluster and a selected virtual machine's type within the requested period.	Report	October 18
Cluster Capacity Vs Usage (BR19) <i>/organizations/ovirtreports/Reports/Executive/cluster_capacity_vs_usage_br19</i>	This report contains charts displaying host's resources usage measurements (CPU core; physical Memory) and charts displaying virtual machine's resources usage measurements (virtual machine's total vCPU; Virtual Memory size) for a selected cluster.	Report	October 18
Host OS Break Down (BR22) <i>/organizations/ovirtreports/Reports/Executive/host_os_break_down_BR22</i>	This report contains a table and a chart displaying the number of hosts for each OS version for a selected cluster within a requested period.	Report	October 18
Summary of Host Usage Resources (BR17) <i>/organizations/ovirtreports/Reports/Executive/summary_of_host_usage_resources_br17</i>	The report contains a scattered chart of CPU and memory usage data within a requested period and for a selected cluster.	Report	October 18

oVirt Reports

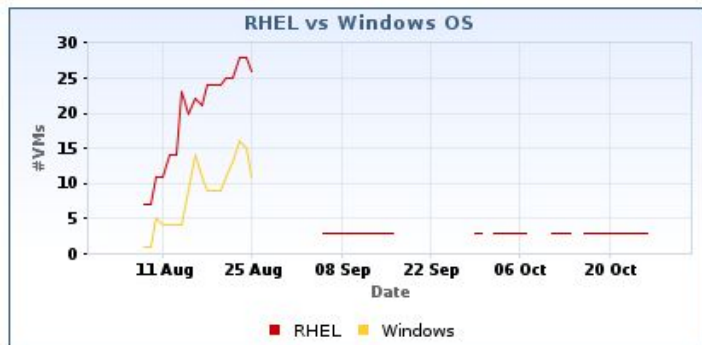
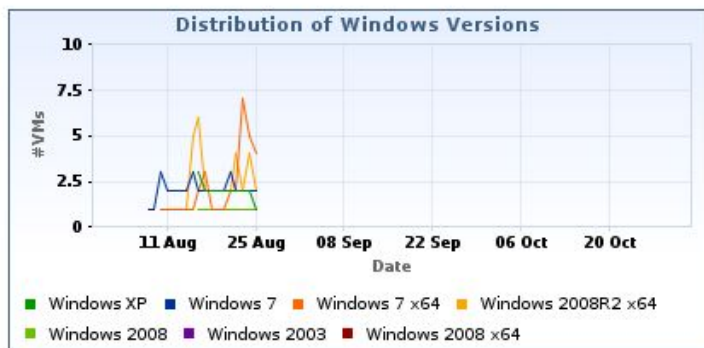
oVirt

oVirt Reports

Oct 31, 2011

Active Virtual Machines by OS in Clusters of Data Center Default

Criteria: Datacenter: Default Date Range: 2011-08-01 - 2011-10-31 VM Type: All
Cluster: All Period: Quarterly Show Deleted Virtual Machines: Yes



Input Controls

* Show Deleted Entities?: Yes

* Data Center: RHEVM-3

* Cluster: RHEVM-3

* VM Type: Server

* Period Range: Monthly

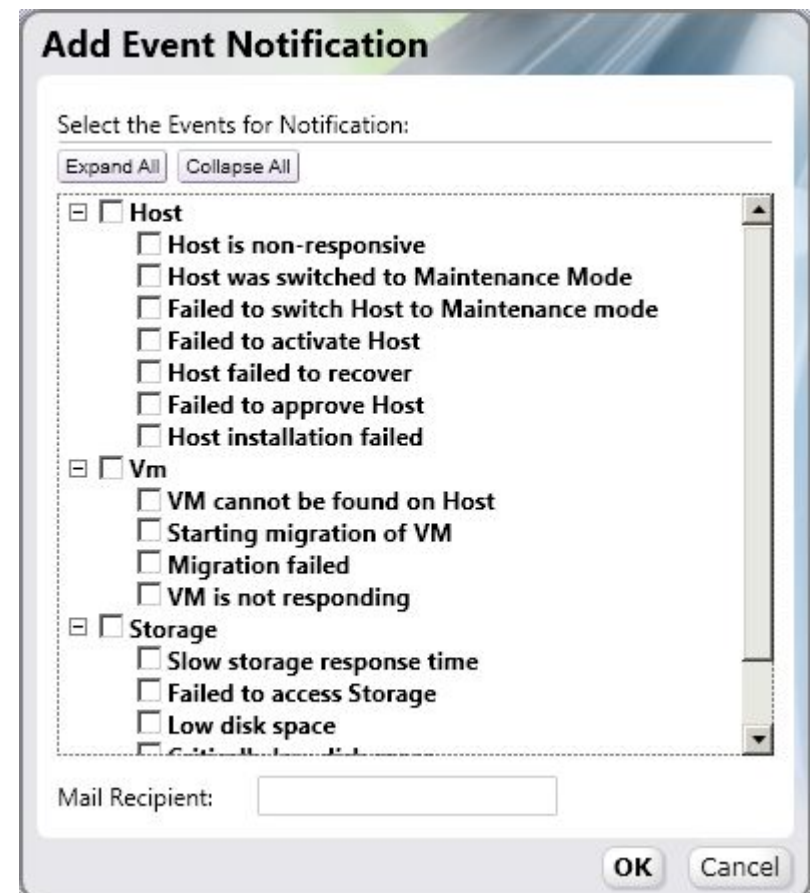
* Select Month: August 2011

* Start Date: 2011-08-01

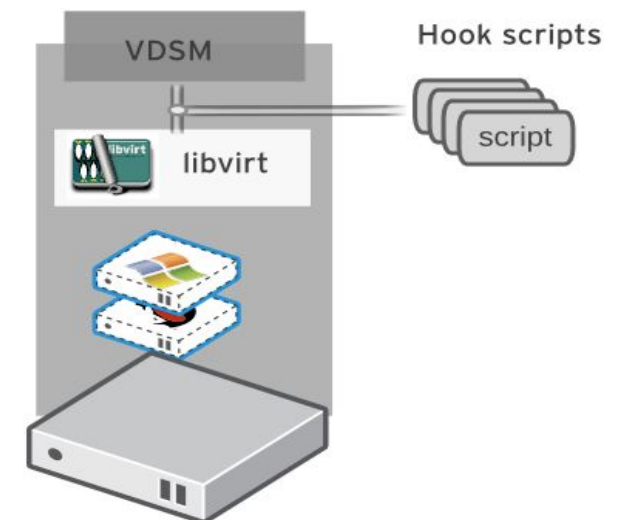
* End Date: 2011-08-31

Apply OK Reset Cancel

- oVirt allows registration to certain audit events
- The notification service sends emails per audit message to relevant users
- Also monitors engine itself



- “Hook” mechanism for customization
 - Allows administrator to define scripts to modify VM operation
 - eg. Add extra options such as CPU pinning, watchdog device, direct LUN access, etc
 - Allows oVirt to be extended for new KVM features before full integration is done
 - An easy way to test a new kvm/libvirt/linux feature
 -
 -



- 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
 - 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

- CPU pinning
- SR/IOV
- Smart card
- Direct LUN
- Hugepages
- Promiscuous mode network interface
- Cisco VN-Link
- Fileinject
- Floppy
- Hostusb
- Isolated private vlan
- Numa
- Qos
- Scratchpad
- smbios

oVirt 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". Below this is a search bar and a set of tabs for navigation: Data Centers, Clusters, Hosts (selected), Networks, Storage, Disks, Virtual Machines, Pools, Templates, Volumes, Users, and Events.

The main content area is divided into several sections:

- System Overview:** A table listing hosts. The selected host is "centos-hyp01.lab.ovid.at" with IP "10.0.100.42", cluster "ovido-local", data center "ovido-local", status "Up", 4 virtual machines, 75% memory usage, 1% CPU usage, and 0% network usage.
- Monitoring Details:** A sub-tab showing a table of monitoring services and their outputs. The services include RHEV CPU Load Check, RHEV Host Load Check, RHEV Host Status Check, RHEV KSM Load Check, RHEV Memory Check, RHEV Network Status Check, RHEV Network Traffic Check, and RHEV Swap Check.
- PNP Performance Graphs:** A graph titled "Load utilization for 10.0.100.42" showing CPU load utilization over a 4-hour period. The y-axis represents load utilization in millipercent (m), ranging from 0 to 200. The x-axis shows time from 14:00 to 17:40. The graph shows a fluctuating load, with a peak around 15:00. Below the graph, statistics are provided: "last: 0.031", "max: 0.138", and "average: 0.07794".

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

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

oVirt – Jenkins

Build Metrics Plugin [Jenkins] – Google Chrome

jenkins.ovirt.org/plugin/build-metrics/getBuildStats?label=Last+year+builds&range=1&rangeUnits=Years&jobFilteringType=ALL&*

oVirt Jenkins Sandro Bonazzola | log out

Jenkins [ENABLE AUTO REFRESH](#)

- Back to Dashboard
- Back to Build Metrics

Some oVirt CI stats:

Avg Builds per day:

- Started with 500
- Today over 1250 (!)
- Highest Builds per day: 9000

oVirt matrix support:

- Fedora: f22,f23
- Centos: el6, el7
- JDK7,JDK8
- Development branches: master, 3.6, 3.6.z

Last year builds

Build Metrics:

Job name	# Successful	# Failed	# Unstable	# Aborted	# Not Built	Total Builds	Failure Rate
archive_jobs_removed_from_yaml_test_pdangur	40	15	0	0	0	55	27.27%
dcaro_test	14	8	0	1	0	23	39.13%
dcaro_test_dummy1	13	0	0	0	0	13	0.0%
fabiaand_boo_build_testing	16	0	0	0	0	16	0.0%
...
vdsm_master_verify-error-codes_merged	164	30	0	0	0	194	15.46%
virtio-win-drivers_3.5_create-rpms-fc23-x86_64_created	1	0	0	0	0	1	0.0%
virtio-win-drivers_3.5_create-rpms-fc23-x86_64_merged	1	0	0	0	0	1	0.0%
Total:	179717	11413	570	300	1030	193030	6.9%

oVirt – Foreman integration

With

- Katello
- Foreman
- oVirt

You'll have:

- Automatic discovery of new hosts
- Automatic provisioning of new hosts
- Automatic deployment making them hypervisors
- Manage their content and updates

The feature pages:

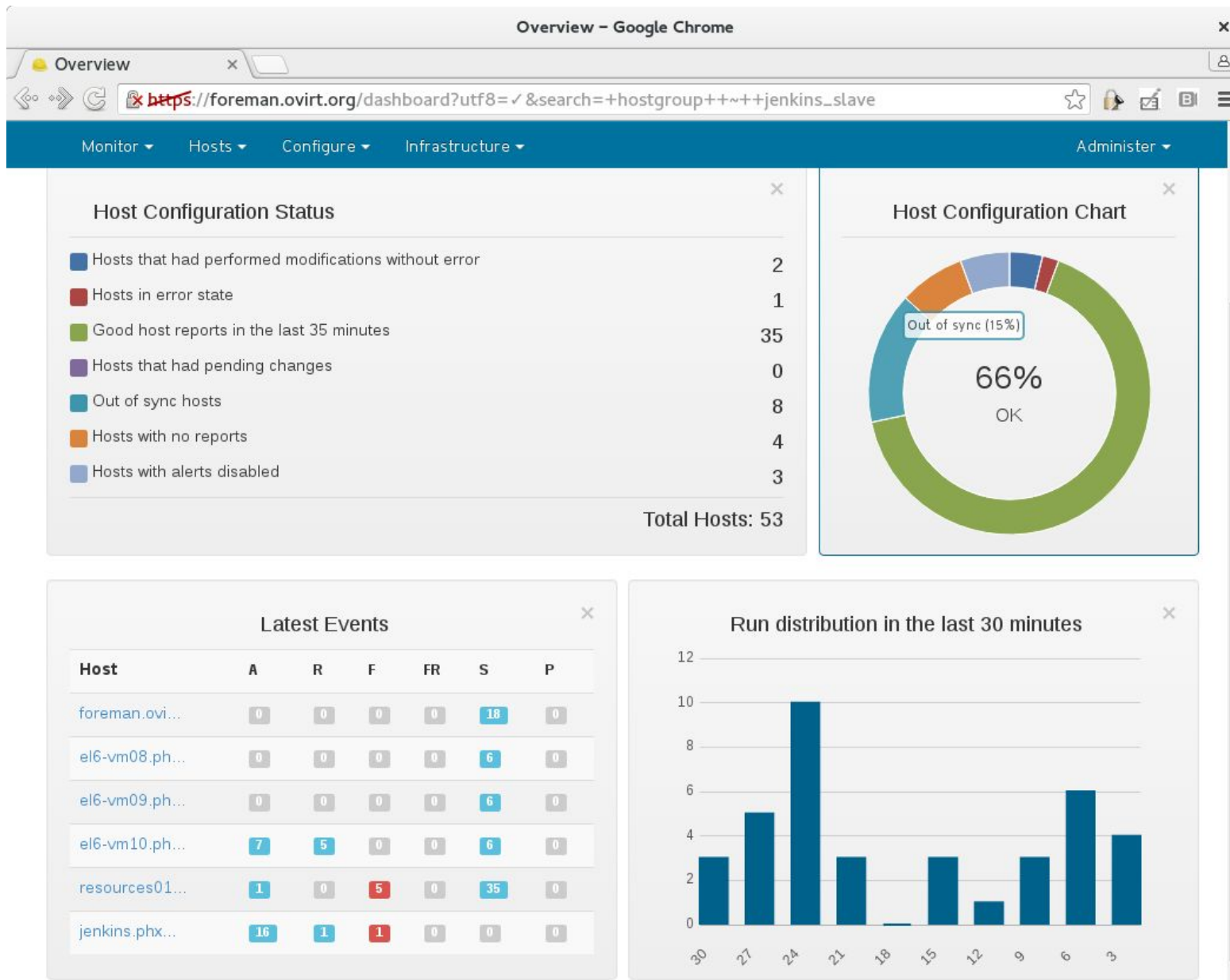
- <http://www.ovirt.org/develop/release-management/features/foreman/foremanintegration/>
- <http://www.ovirt.org/develop/release-management/features/katellointegration/>
- <http://www.ovirt.org/develop/release-management/features/engine/upgrademanager/>



oVirt



oVirt What's Foreman



- Provision
- Configure
- Monitor

el7-vm02.phx.ovirt.org - Google Chrome

el7-vm02.phx.ovirt.org

FOREMAN Sandro Bonazzola

Monitor Hosts Configure Infrastructure Administer

el7-vm02.phx.ovirt.org

Reports from the last 7 days - 336 reports found

Edit Build Power Off Console Run puppet Delete

Details

Audits Facts Reports YAML

Properties Metrics Templates VM

Properties	
Name	el7-vm02-phx-ovirt-org
VCPU(s)	2
UUID	cd0a4828-0282-4d30-a0d6-92d6e392ff0c
Memory	8 GB
Display	spice ()
NIC	main - 00:1a:4a:5b:7e:0a
Disk	using 40 GB
Running on	engine-phx.ovirt.org_Jenkins-DC (oVirt)

Runtime

last 7 days

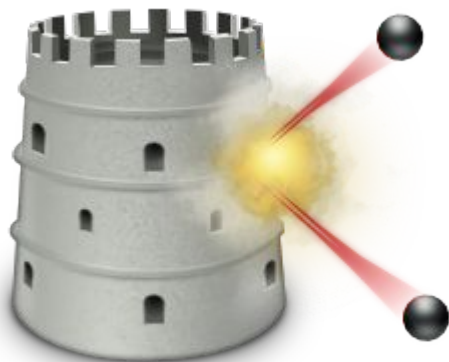
Legend: Config Retrieval (red), Runtime (blue)

Resources

last 7 days

Legend: Applied (green), Failed (red), Failed restarts (dark red), Skipped (purple), Restarted (blue)

- Manage local yum and puppet repositories
- Sync remote repositories
- Create custom Content
- Show Errata updates
- Install Errata updates



The screenshot displays the Katello web interface with several panels:

- Content Host Subscription Status:** A table showing subscription counts and a green progress indicator.
- Current Subscription Totals:** A panel for viewing subscription totals.
- Latest Notifications:** A panel for viewing the latest notifications.
- Content Views Overview:** A table listing content views and their publication status.
- Sync Overview:** A panel for viewing sync overview.
- Host Collections:** A panel showing no host collections found.
- Errata Overview:** A table listing errata with their types and affected content hosts.

Content Host Subscription Status	
Invalid Subscriptions	0
Insufficient Subscriptions	0
Current Subscriptions	2
Total Content Hosts	2

Content Views Overview	
ovirt_public, versio...	Published new vers... ▼ Success Mon, 26 Jan 2015 10:12:37 +0000
ovirt_cluster_35, ve...	Published new vers... ▼ Success Fri, 16 Jan 2015 12:50:17

Errata Overview	
TYPE	ERRATA
▲	RHSA-2014:1306 (1 Content Hosts)
■	RHBA-2014:1328 (1 Content Hosts)
▲	RHSA-2014:1307 (1 Content Hosts)
▲	RHSA-2014:1293 (1 Content Hosts)
■	RHBA-2014:1272 (1 Content Hosts)

oVirt oVirt – IAAC support

Unofficial plugin exists for puppet

<https://forge.puppetlabs.com/jcannon/ovirt>



Official plugin exists for Ansible

http://docs.ansible.com/ansible/ovirt_module.html

Sample Ansible code for starting a VM:

ovirt:

```
instance_name: jenkins_vm01
state: started
user: admin@internal
password: secret
url: https://ovirt.example.com
```


- OpenStack Neutron External Network Provider
<http://bit.ly/22jVfE5>
- OpenStack Glance External Images Provider
<http://bit.ly/1R2Gc71>
- OpenStack Cinder External Volume Provider
<http://bit.ly/1Lqh79d>

The screenshot shows the oVirt Engine Web Administration interface in Google Chrome. The browser address bar displays the URL: `https://engine-phx.ovirt.org/ovirt-engine/webadmin/?locale=en_US#storage-i`. The page title is "oVirt Engine Web Administration - Google Chrome".

The interface is divided into several sections:

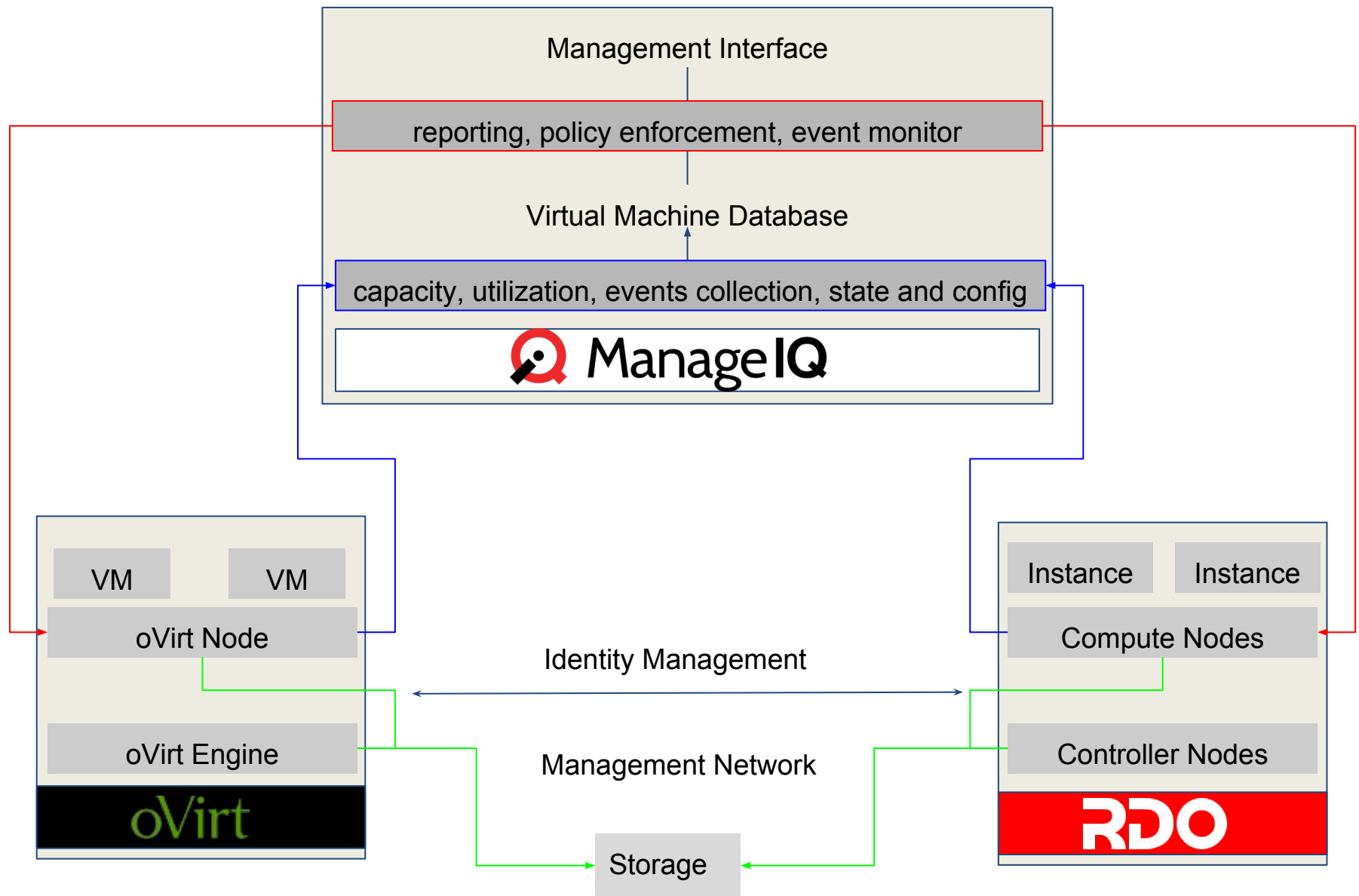
- System:** A sidebar on the left shows a tree view of the system hierarchy, including Data Centers, Default, Storage, Networks, Templates, Clusters, Jenkins, and External Providers. The "ovirt-image-repository" is selected under External Providers.
- Storage:** The main content area shows a table of storage domains. The table has columns for Domain Name, Domain Type, Storage Type, Format, and Cross D. The domains listed are:

Domain Name	Domain Type	Storage Type	Format	Cross D
Jenkins	Data (Master)	NFS	V3	Activ
ovirt-image-repository	Image	OpenStack Glance	V1	Unat
Production	Data (Master)	NFS	V3	Activ
- Images:** Below the storage domains, there is a section for "Images" with a table of image files. The table has columns for File Name and Type. The images listed are:

File Name	Type
Fedora 19 32-Bit (6975f6e)	Disk
Cirros 0.3.1 (73786f4)	Disk
CentOS 6.5 64-Bit (7df3c30)	Disk
Fedora 19 64-Bit (865bfac)	Disk
Neutron Appliance (CentOS 7.0) - IceHouse-2014.1.1-3 (960d964)	Disk
Fedora 20 Project Atomic Image (a62ba67)	Disk
Fedora 22 Base Cloud Image (b383ece)	Disk
CentOS 6.5 64-Bit Docker (b485e50)	Disk
Fedora 22 Cloud Atomic Image (bf1242c)	Disk

The bottom status bar shows a "Last Message" at 2016-Mar-16, 13:19, indicating that the "Refresh image list succeeded for domain(s): ovi...". There are also "Alerts (0)", "Events", and "Tasks (0)" indicators.

ManageIQ Integration



ManageIQ: Clusters - Mozilla Firefox

ManageIQ: Clusters x +

https://manageiq.home/ems_cluster/show/3

ManageIQ Administrator | EVM

Cloud Intelligence Services Clouds **Infrastructure** Containers Control Automate Optimize Configure

Providers **Clusters** Hosts Virtual Machines Resource Pools Datastores Repositories PXE Requests Configuration Management

▼ Jenkins

Configuration Policy Monitoring

Hosts	5
Direct VMs	46
All VMs	46
All Templates	16
All VMs (Tree View)	46
Cluster / Deployment Roles	0
Drift History	None

Totals for Hosts

Total CPU Resources	131.2 GHz
Total Memory	629.36 GB
Total CPUs	10
Total Host CPU Cores	80
Aggregate disk capacity	0 Bytes

Totals for VMs

Total Configured Memory	449 GB (Virtual to Real Ratio: 0.7000000000000001)
Total Configured CPUs	63 (Virtual to Real Ratio: 0.8)

Smart Management

My Company Tags	No My Company Tags have been assigned
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[Stefan Baudy](#) - [CC BY 2.0](#) - No modification made

THANK YOU!

<http://www.ovirt.org>

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