

# Moving your Virtual Machines to oVirt with ease

Arik Hadas  
Senior Software Engineer  
Red Hat  
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# How do you run Virtual Machines?

- There are many ways to run a VM
- Different management systems
  - virt-manager, VMware vSphere, Ganeti, ...
- Different hypervisors
  - KVM, ESX/ESXi, Xen, VirtualBox, ...

- oVirt is a great
  - Open source
  - Feature-rich management
    - Live VM & Storage Migration
    - Advanced SLA & Scheduling
    - Much more...
- We want others to know that!

# “I don't want to loose my VMs”

- Virtualization technologies are used for a long time
- No standard conversion process exists
- People are tied up to their currently used technologies
- Better conversion process is needed!

# What VM conversion process does?

- Virtual Machine is composed of:
  - Configuration
  - Virtual Disks
  - Memory
- Memory should not be converted
- Need to convert configuration & disks

- Representing VM configuration
  - Memory, Cpu
  - Disks
  - Many more...
- XML format
- Varies among different providers

- Stores persisted data
  - Operating system
  - Drivers
  - Other data
- Format varies among different providers

- Currently done using virt-v2v
- virt-v2v
  - Standalone command-line tool
  - Foreign hypervisor -> KVM
  - Creates a VM oVirt can consume

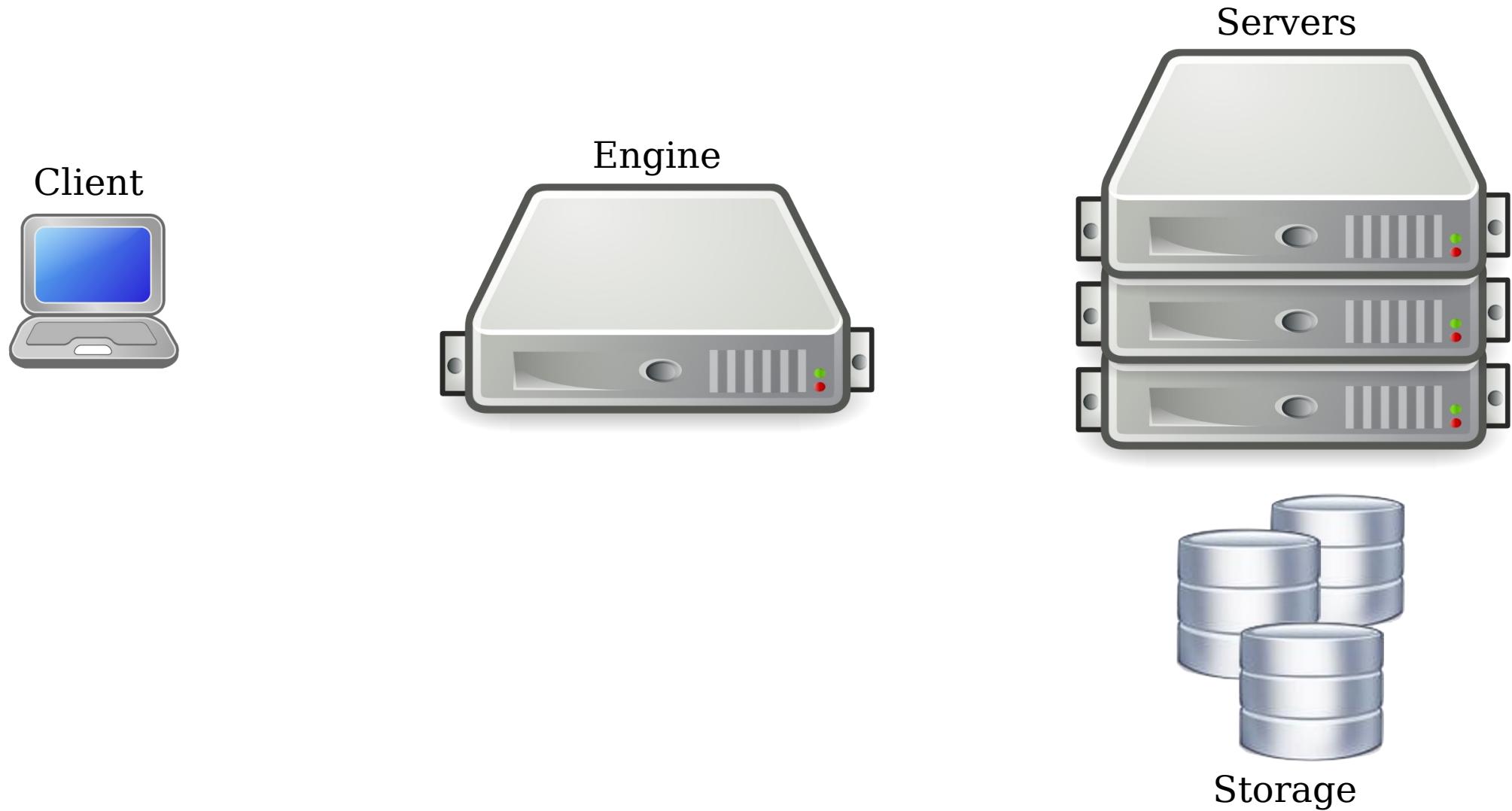
- Converts disk formats
- Enables VirtIO drivers
  - If possible..
  - Display, Network, Storage
- Produces full oVirt-compatible OVF
  - Explores disks for OS, drivers, ...
- Outputs the VM in oVirt's export domain

# What's wrong with the current process?

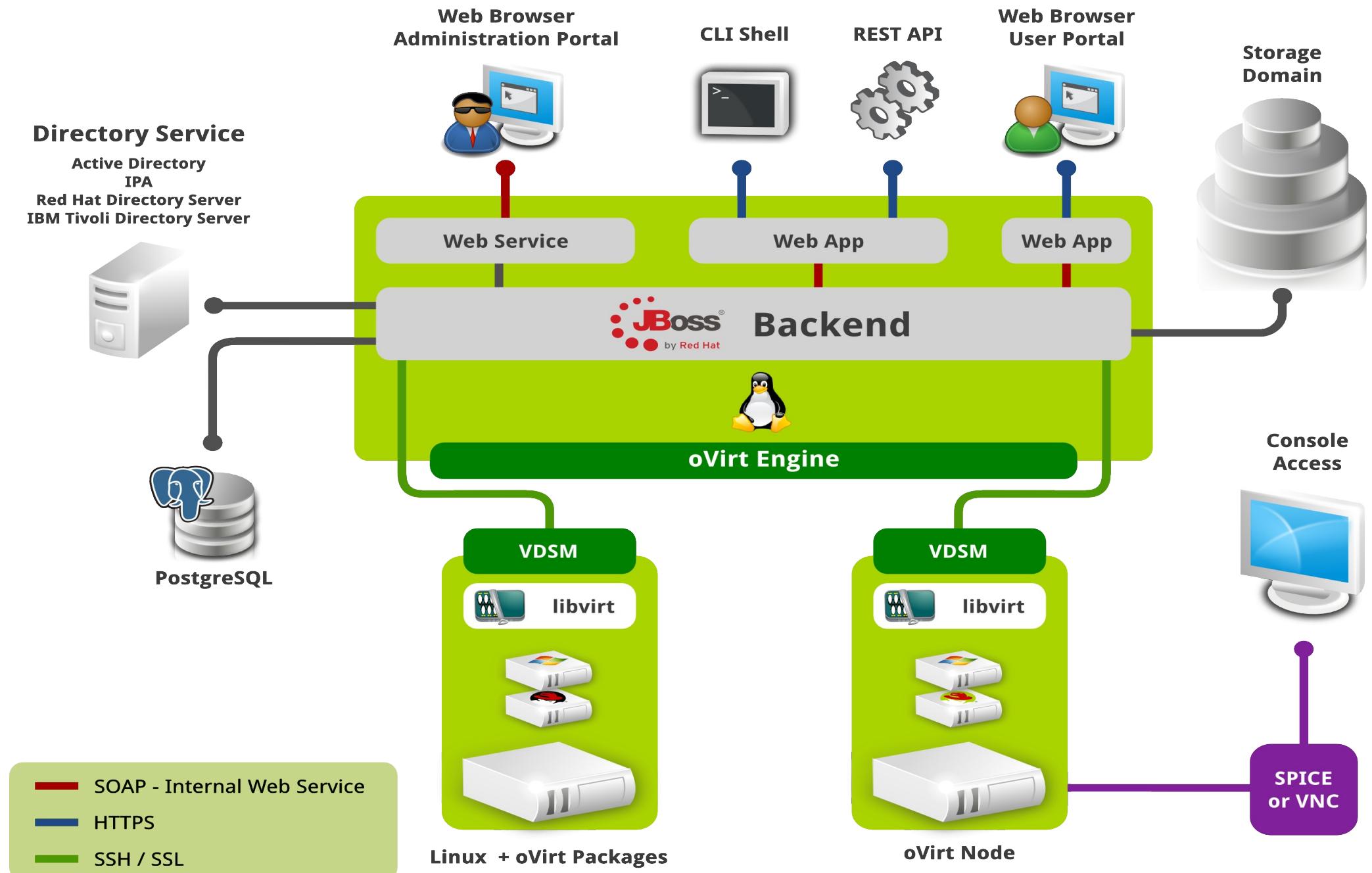
- Slow
- No Graphical User Interface
  - To configure
  - To monitor
- Error-prone
- Not robust

- Improve conversion process
  - Use virt-v2v capabilities
  - Manage the process in oVirt
- Generalize the import process in oVirt
- Specialize virt-v2v to oVirt

# Very high-level oVirt architecture view



# Deeper oVirt architecture view



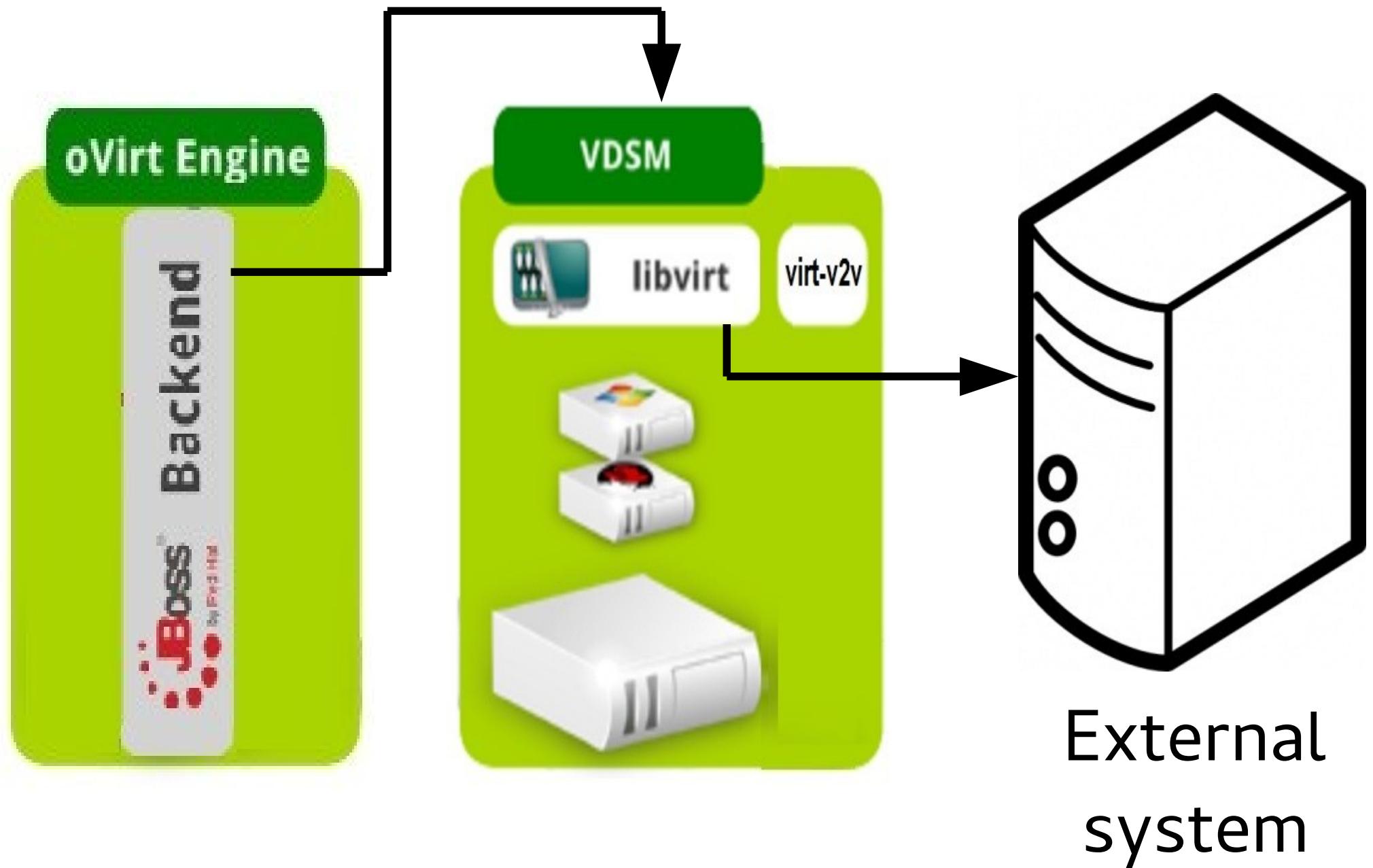
# oVirt How virt-v2v is integrated in oVirt?



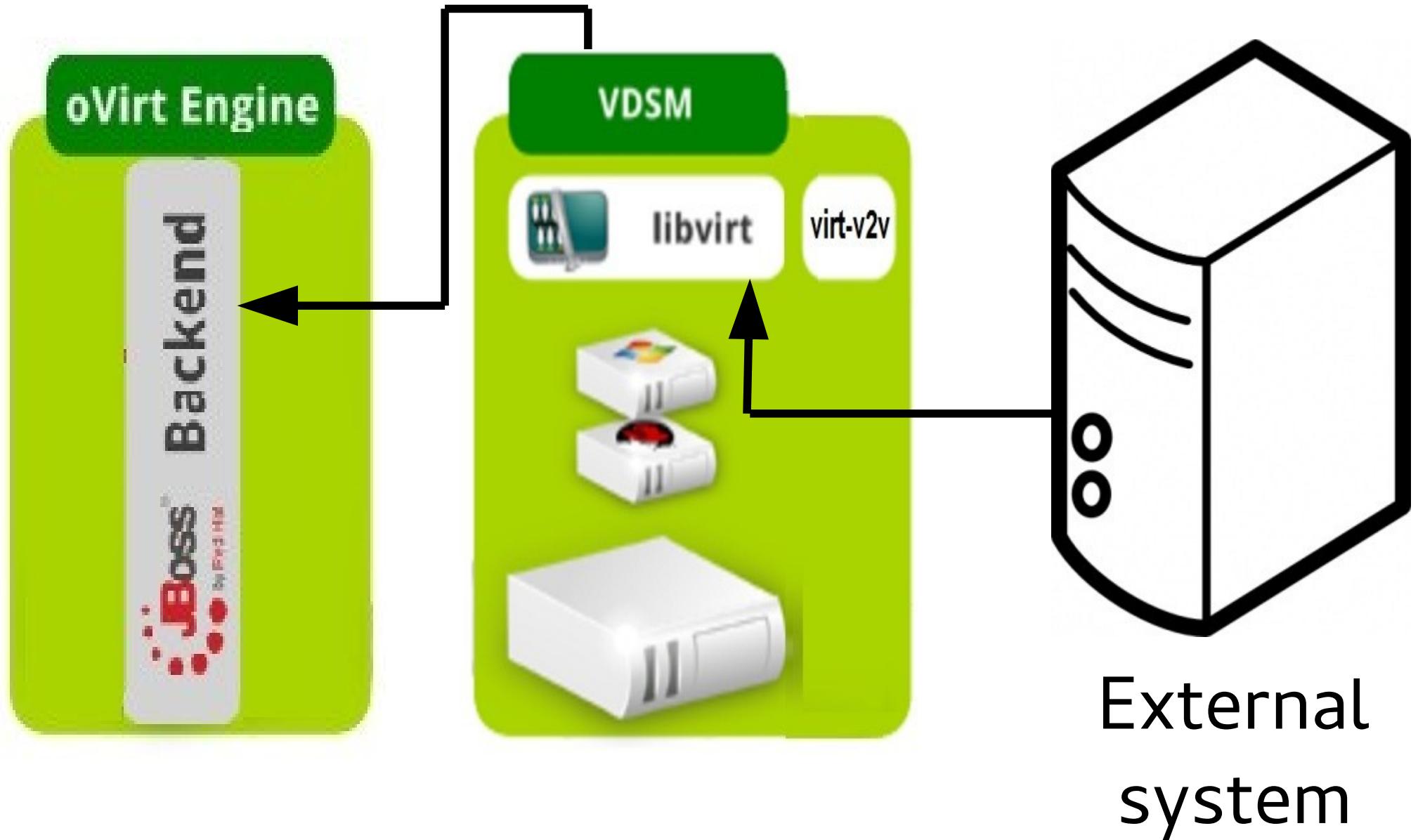
# How virt-v2v will be integrated in oVirt?



# List VMs from external provider



# List VMs from external provider



# List VMs from external provider

Data Center

Source

Provider URL

Username

Password

Proxy Host

**Virtual Machines on Source**

<input type="checkbox"/>	Name
<input type="checkbox"/>	RHEL7
<input type="checkbox"/>	VMware vCenter Server Appliance
<input checked="" type="checkbox"/>	CENTOS
<input type="checkbox"/>	Windows7

**Virtual Machines to Import**

<input type="checkbox"/>	Name
<input type="checkbox"/>	Fedora20

# oVirt Convert VM from external provider

Import Virtual Machine(s)

Default Storage Domain: Default2 (27 GB free of 592 GB)

Cluster: Default

CPU Profile: Default

Clone	Name	Origin	Memory	CPUs	Architecture	Disks
<input checked="" type="checkbox"/>	Fedora20	N/A	1024 MB	1	x86_64	1

General Network Interfaces Disks

Name	Network Name	Profile Name	Type	MAC
VM Network	ovirtmgmt	ovirtmgmt	VirtIO	00:0c:29:06:44:d2

OK Back Cancel

# oVirt Convert VM from external provider

Import Virtual Machine(s)

Default Storage Domain	Default2 (27 GB free of 592 GB)
Cluster	Default
CPU Profile	Default

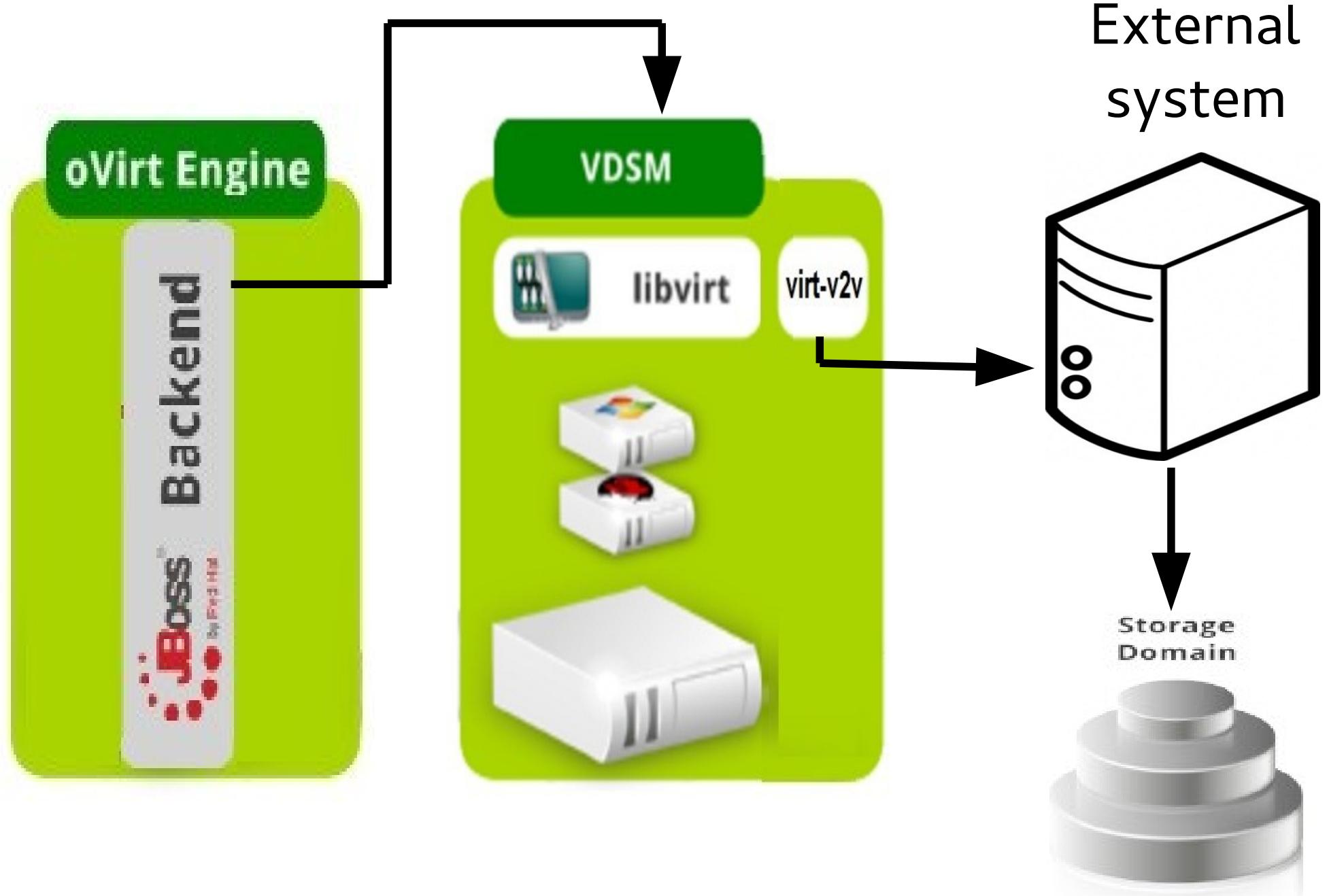
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General Network Interfaces Disks

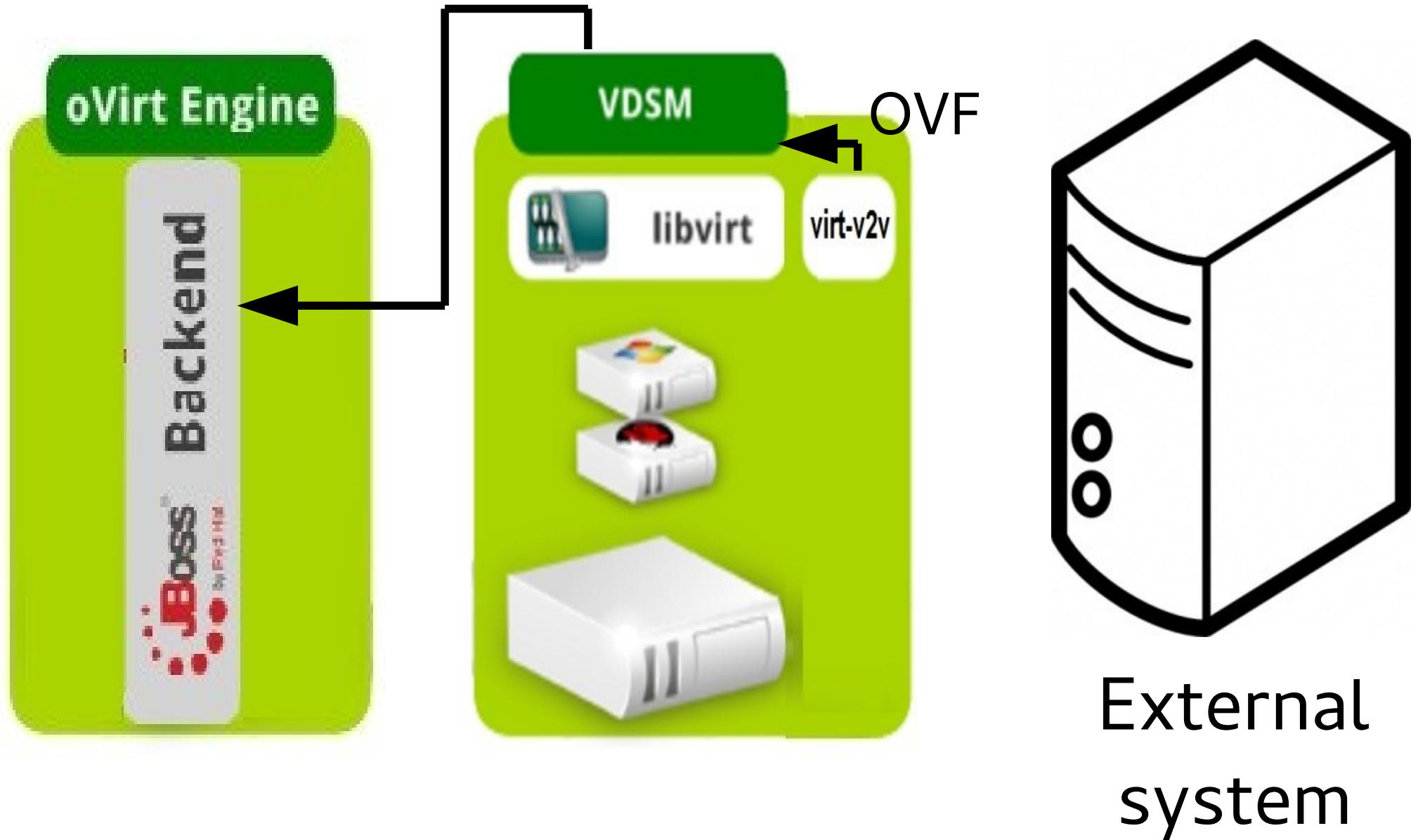
Alias	OS	Virtual Size	Allocation Policy	Storage Domain
[datastore1] Fedora21/Fedora21.vmdk		25 GB	Thin Provision	Default2 (27 GB free of 59)

OK Back Cancel

# oVirt Convert VM from external provider



# Convert VM from external provider



# How do we make the conversion faster?

External Storage



Export Domain



Data Domain



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Export Domain



Data Domain



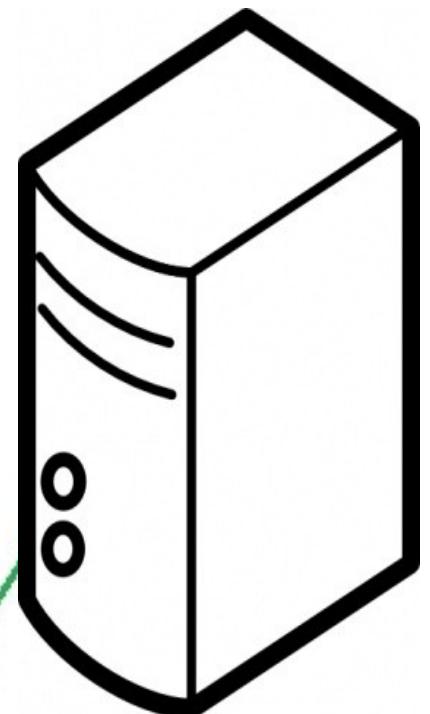
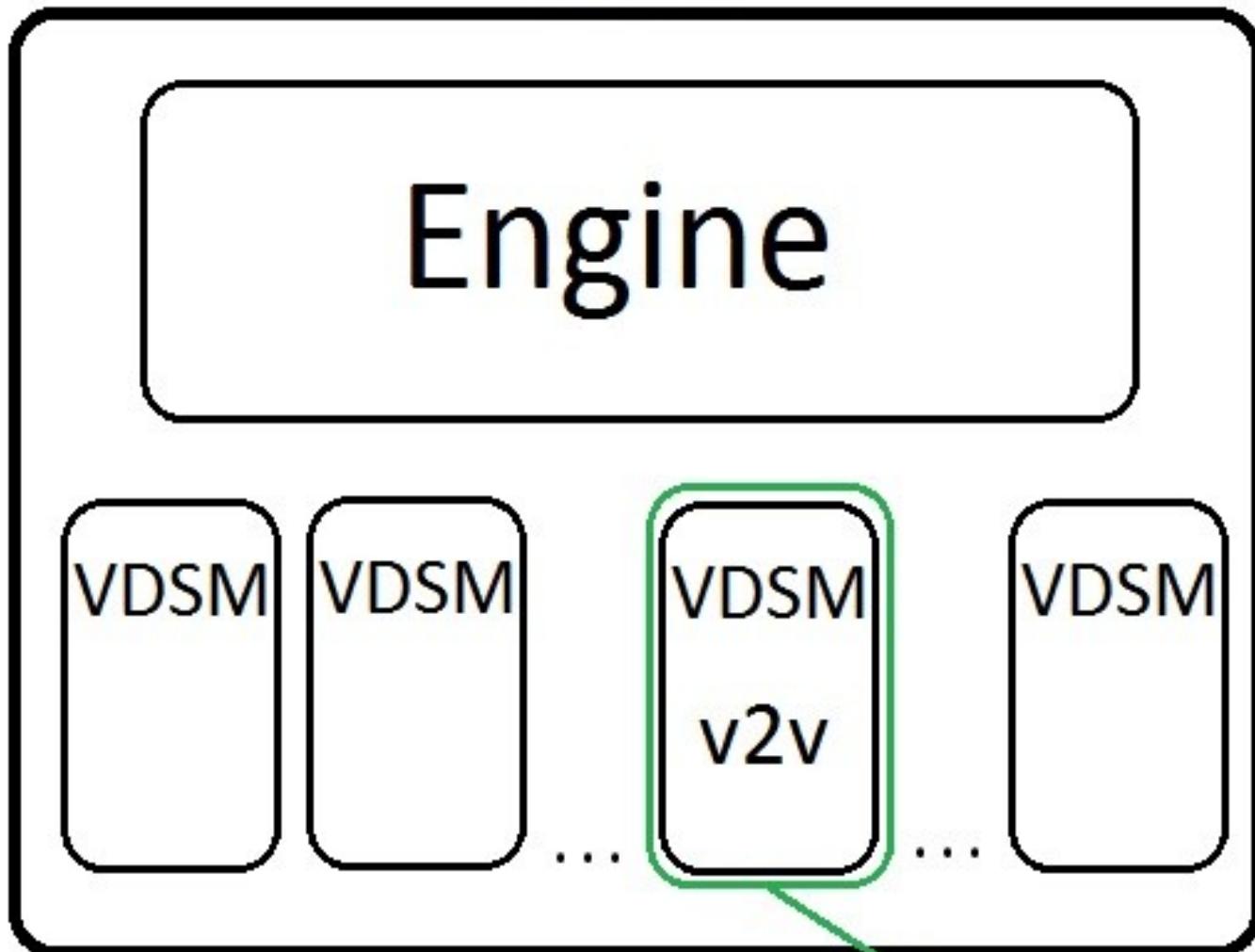
External Storage



Data Domain



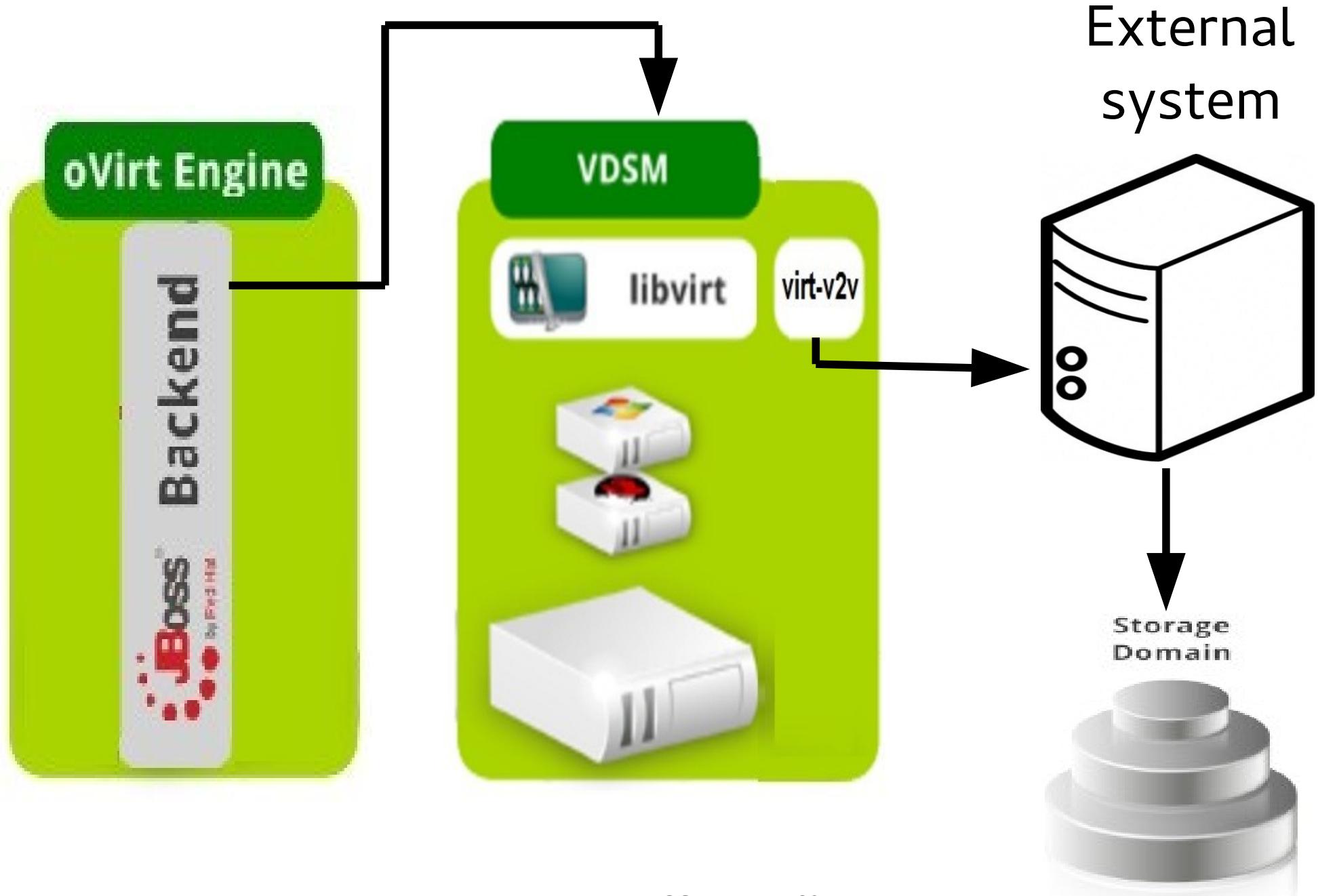
oVirt

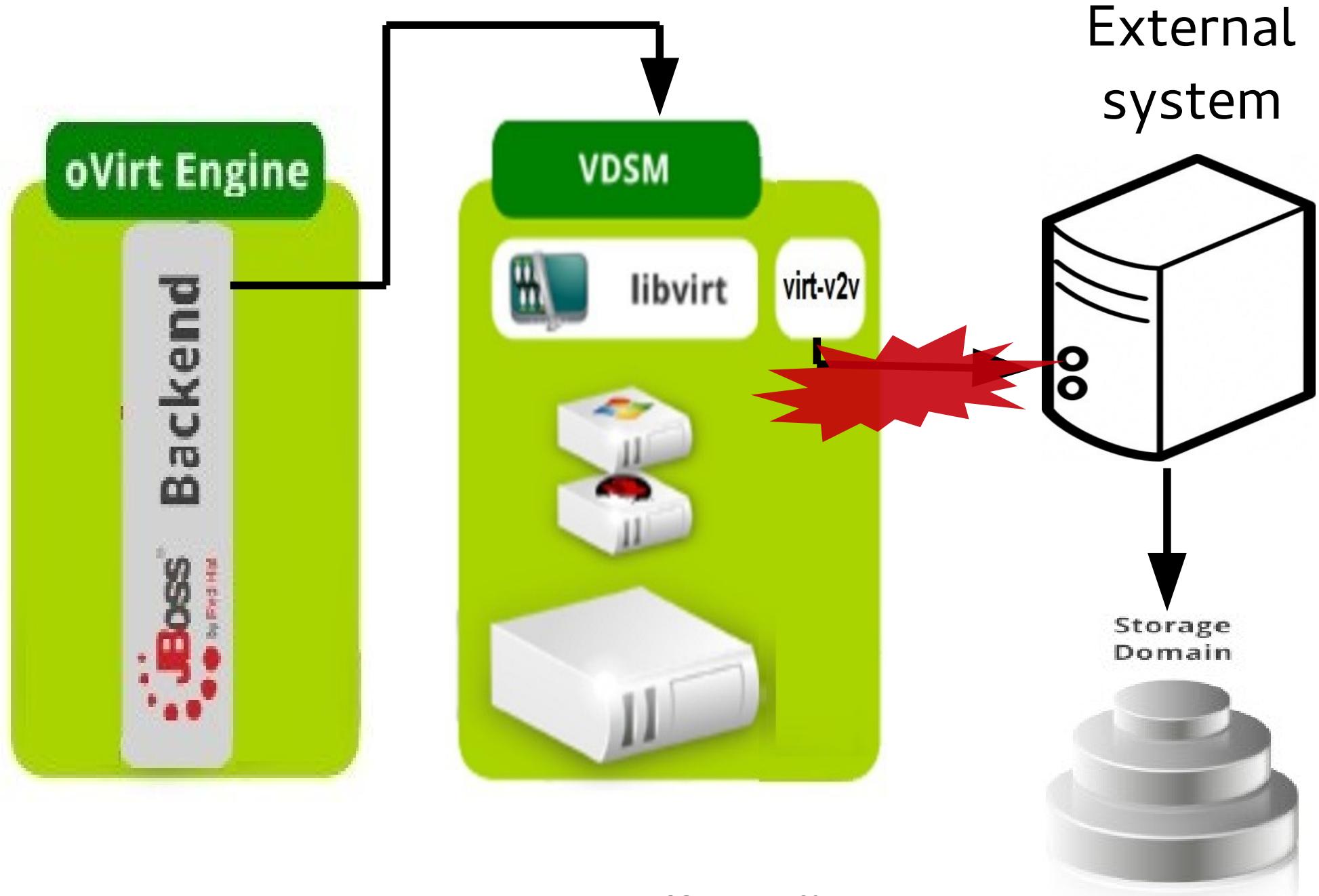


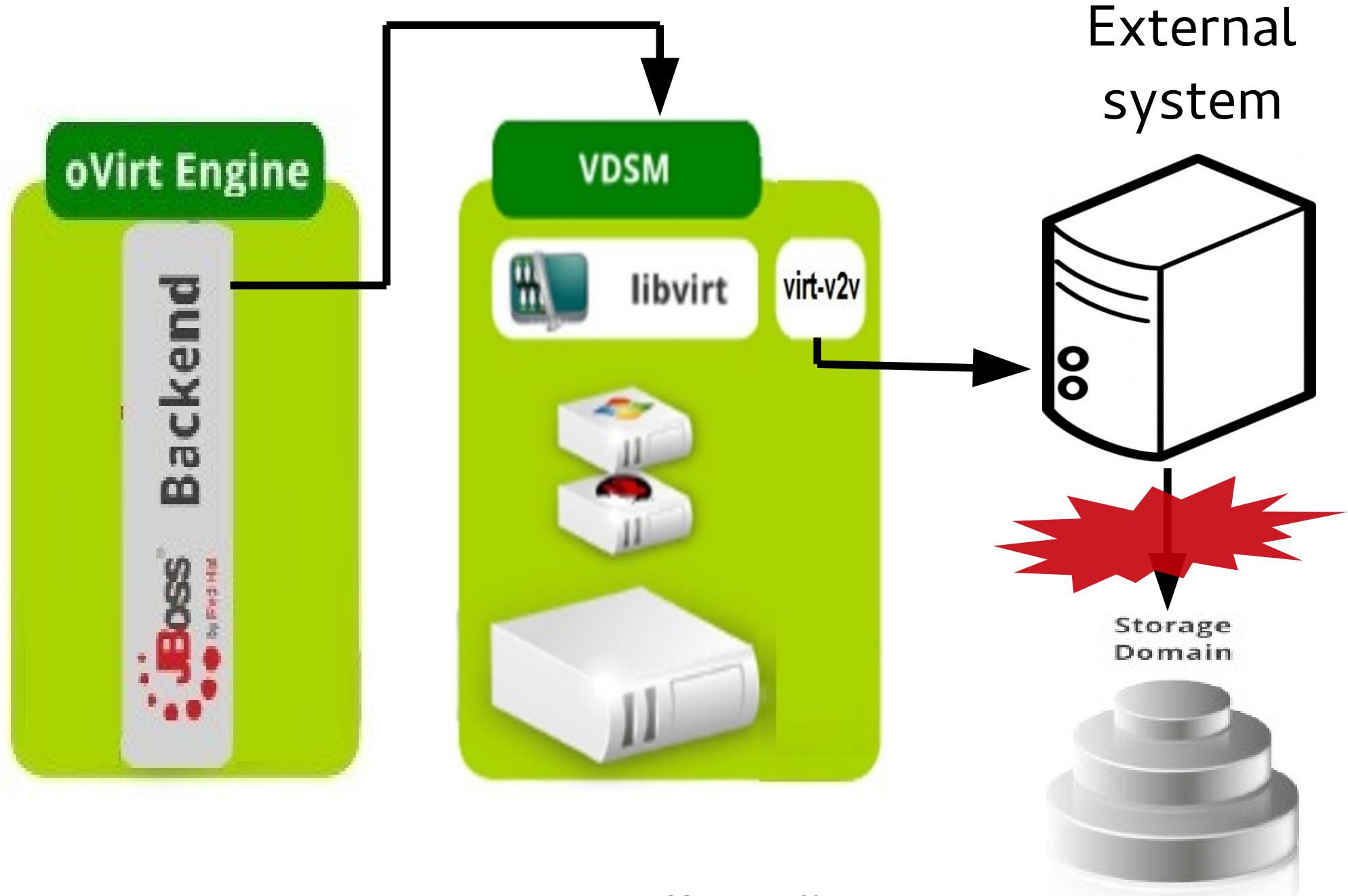
External  
system

# Using a proxy

Data Center	<input type="text" value="Default"/> ▼
Source	<input type="text" value="VMware"/> ▼
Provider URL	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
Proxy Host	<input type="text" value="Any Host in Data Center"/> ▼ Any Host in Data Center ziggy bamba







# THANK YOU!

<http://www.ovirt.org>  
ahadas@redhat.com  
ahadas@irc.oftc.net#ovirt