oVirt

Moving your Virtual Machines to oVirt with ease

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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, ...

Our goal

- 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

Open Virtualization Format

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

Virtual Disks

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

How conversion to oVirt is made today?

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

virt-v2v capabilities

- 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

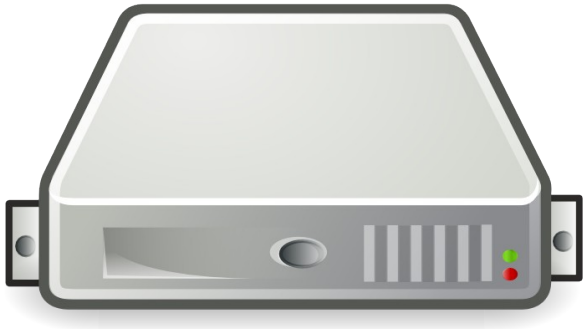
Integrate virt-v2v with oVirt

- 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

Client

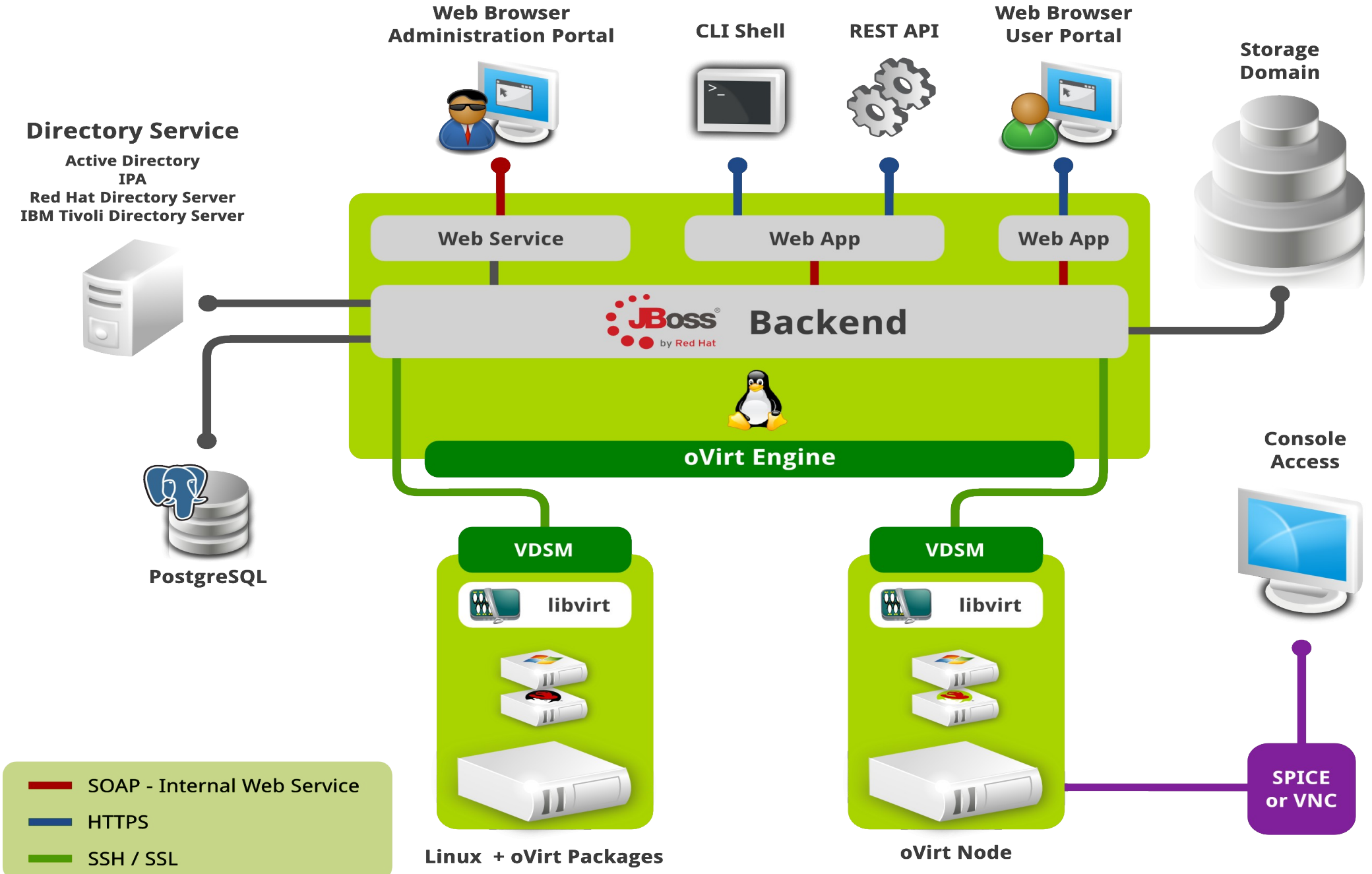
Engine



Servers

Storage

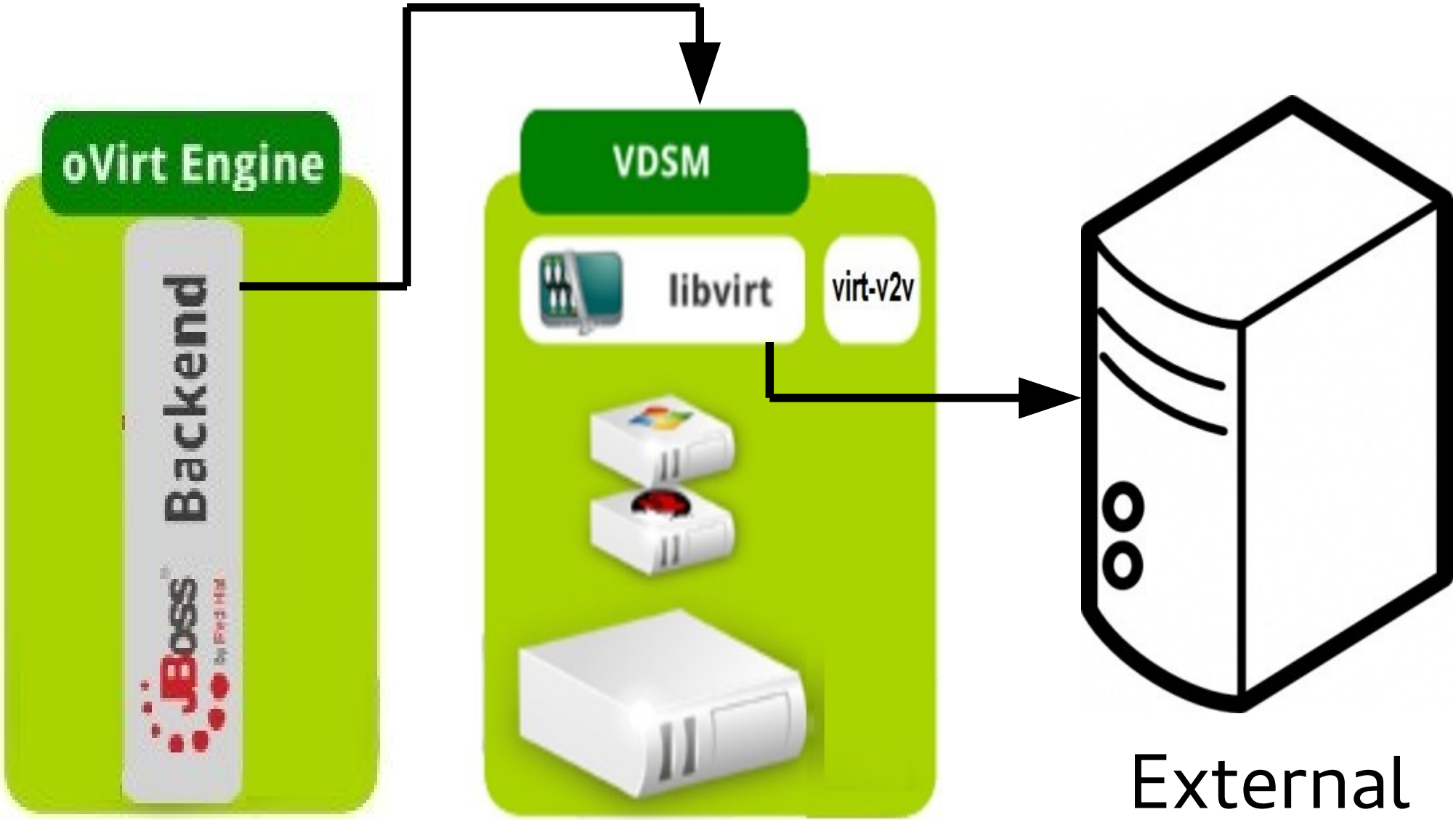
Deeper oVirt architecture view



How virt-v2v is integrated in oVirt?

How virt-v2v will be integrated in oVirt?

List VMs from external provider



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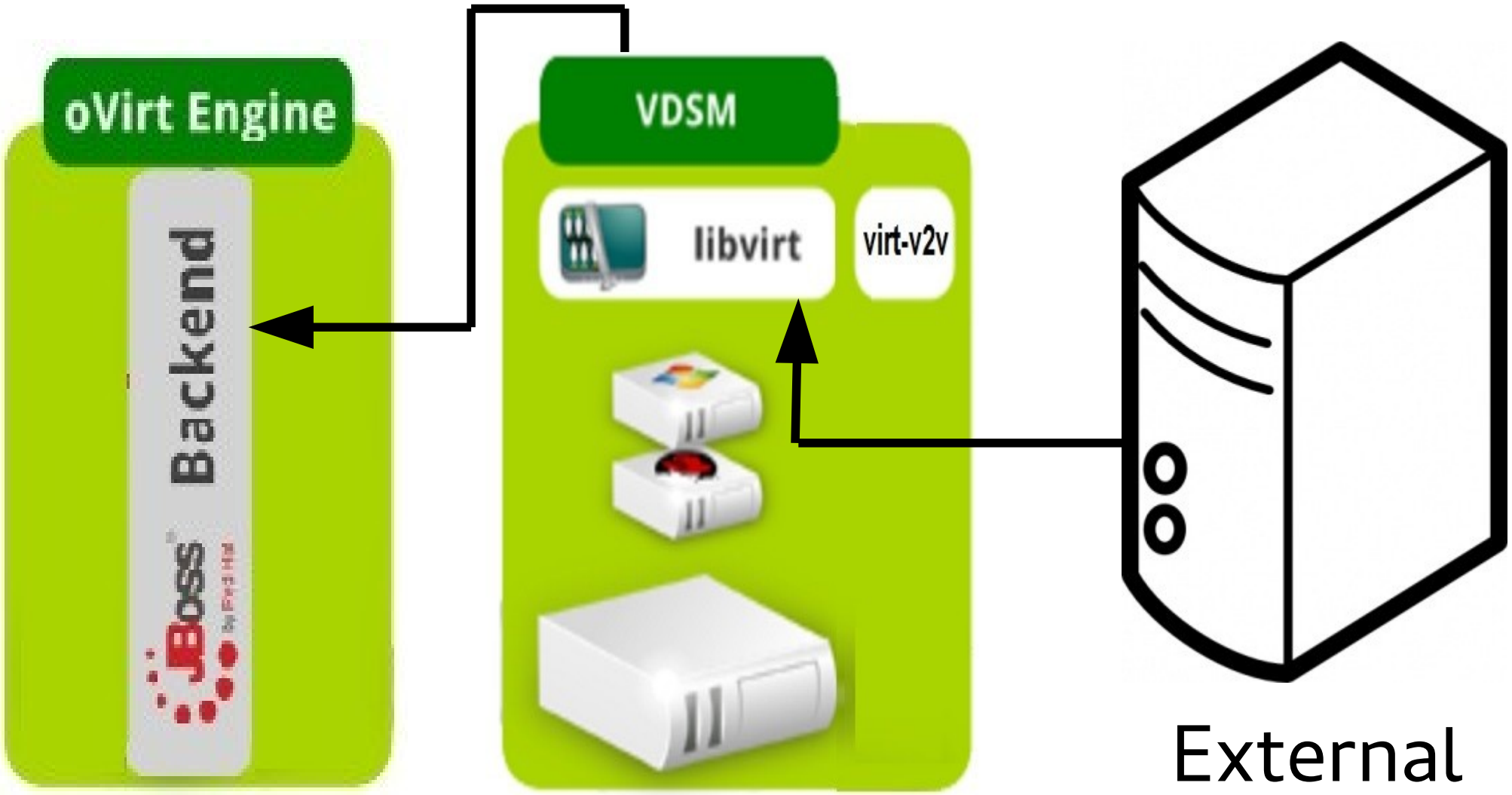

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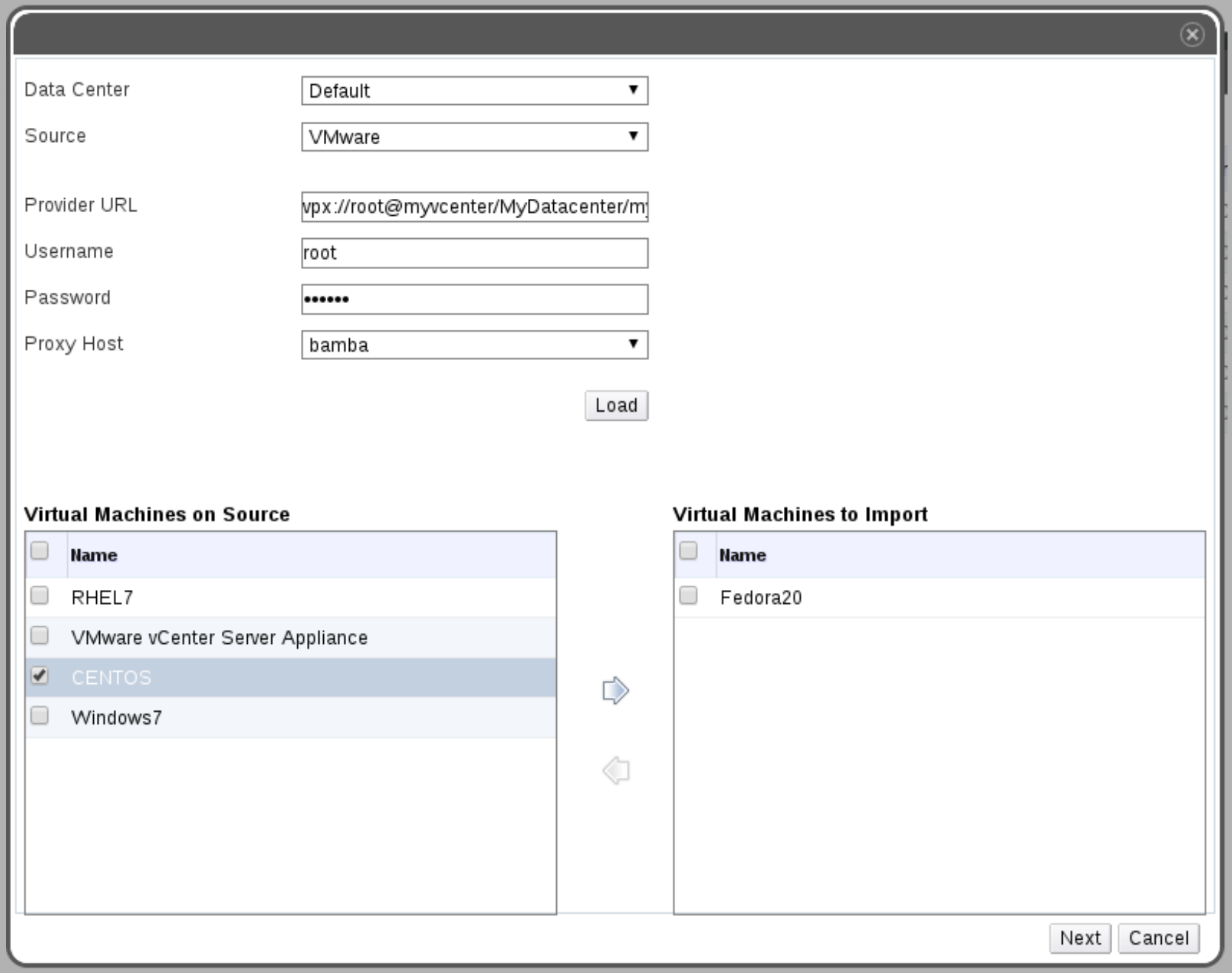
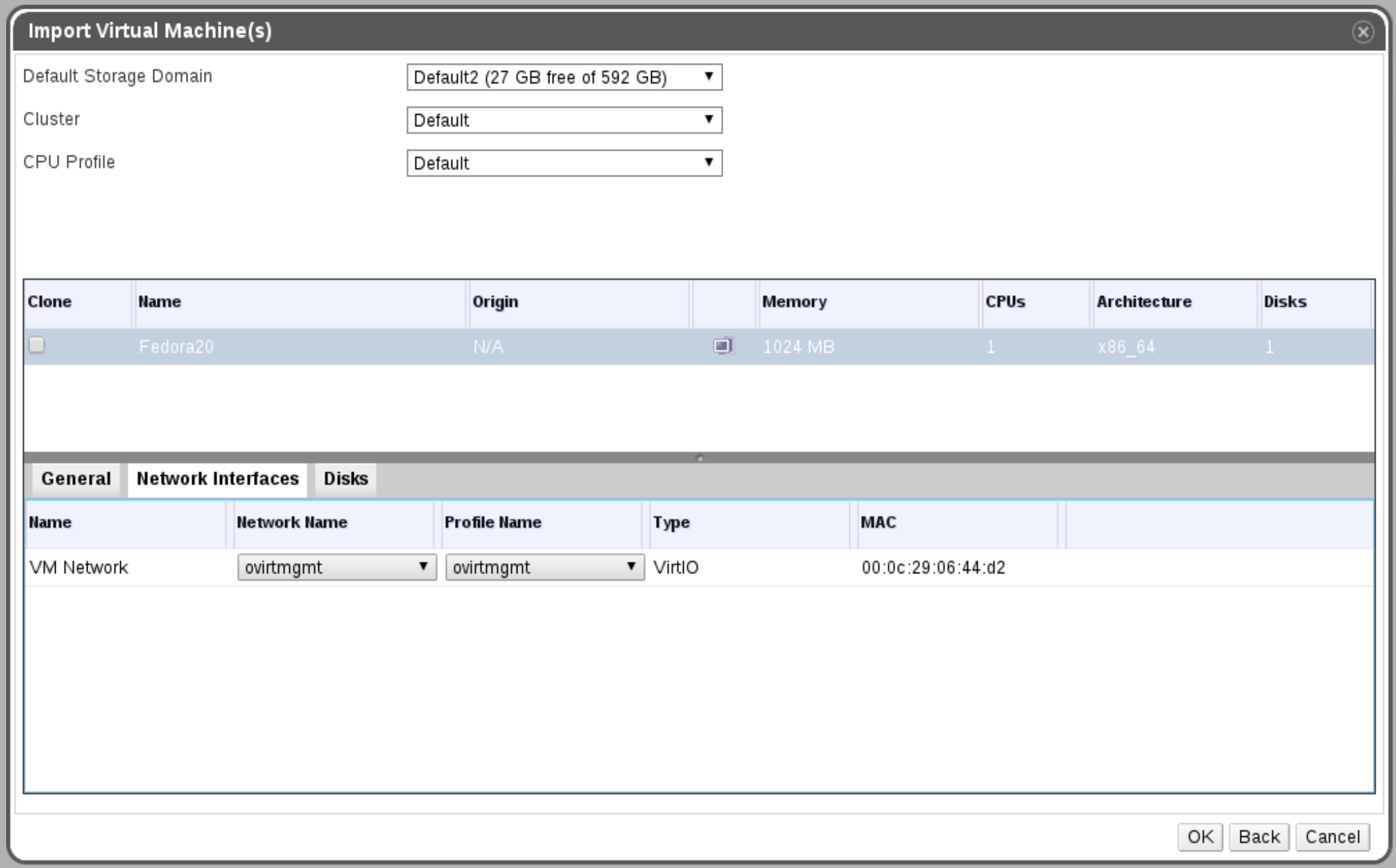


Convert VM from external provider



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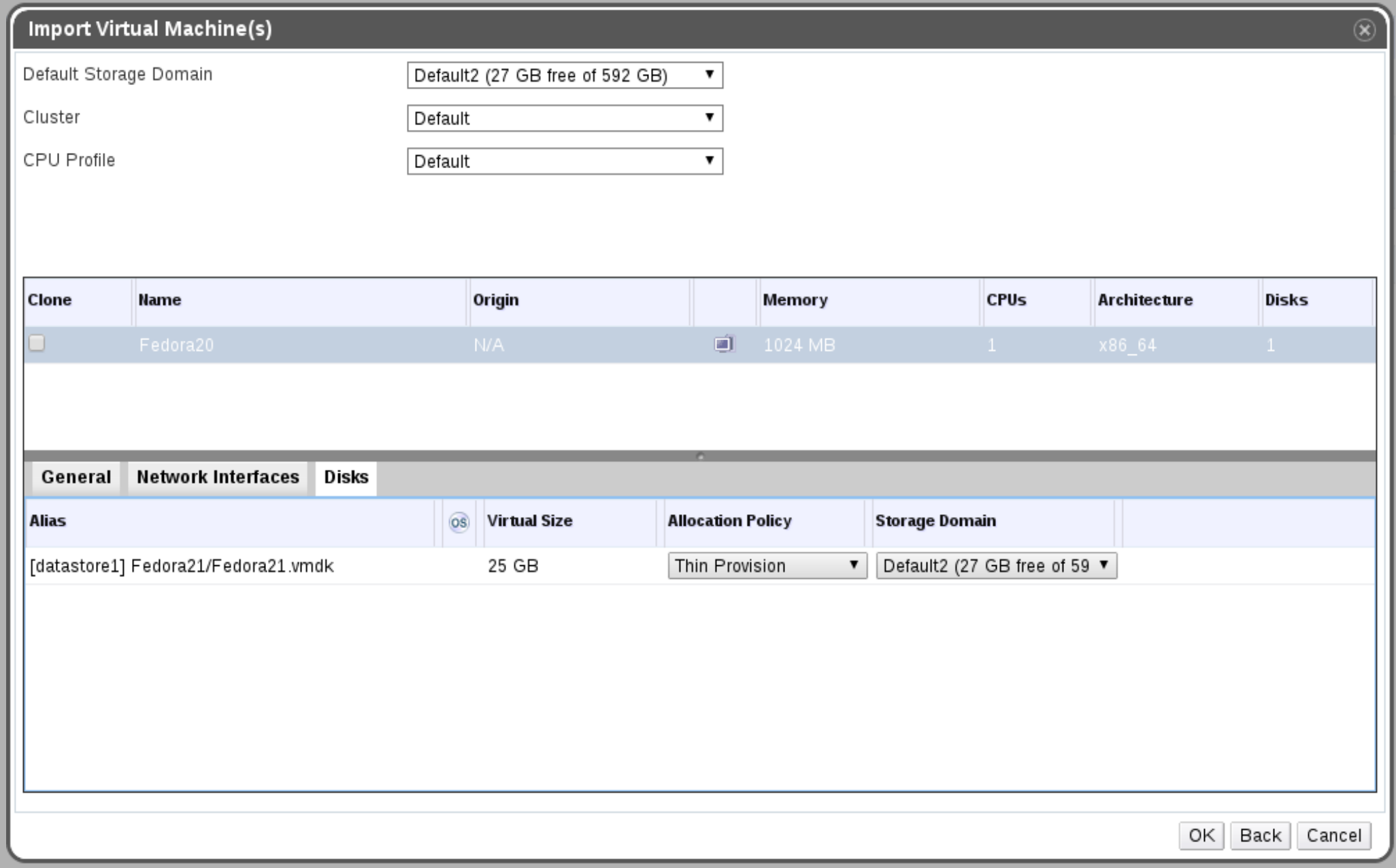

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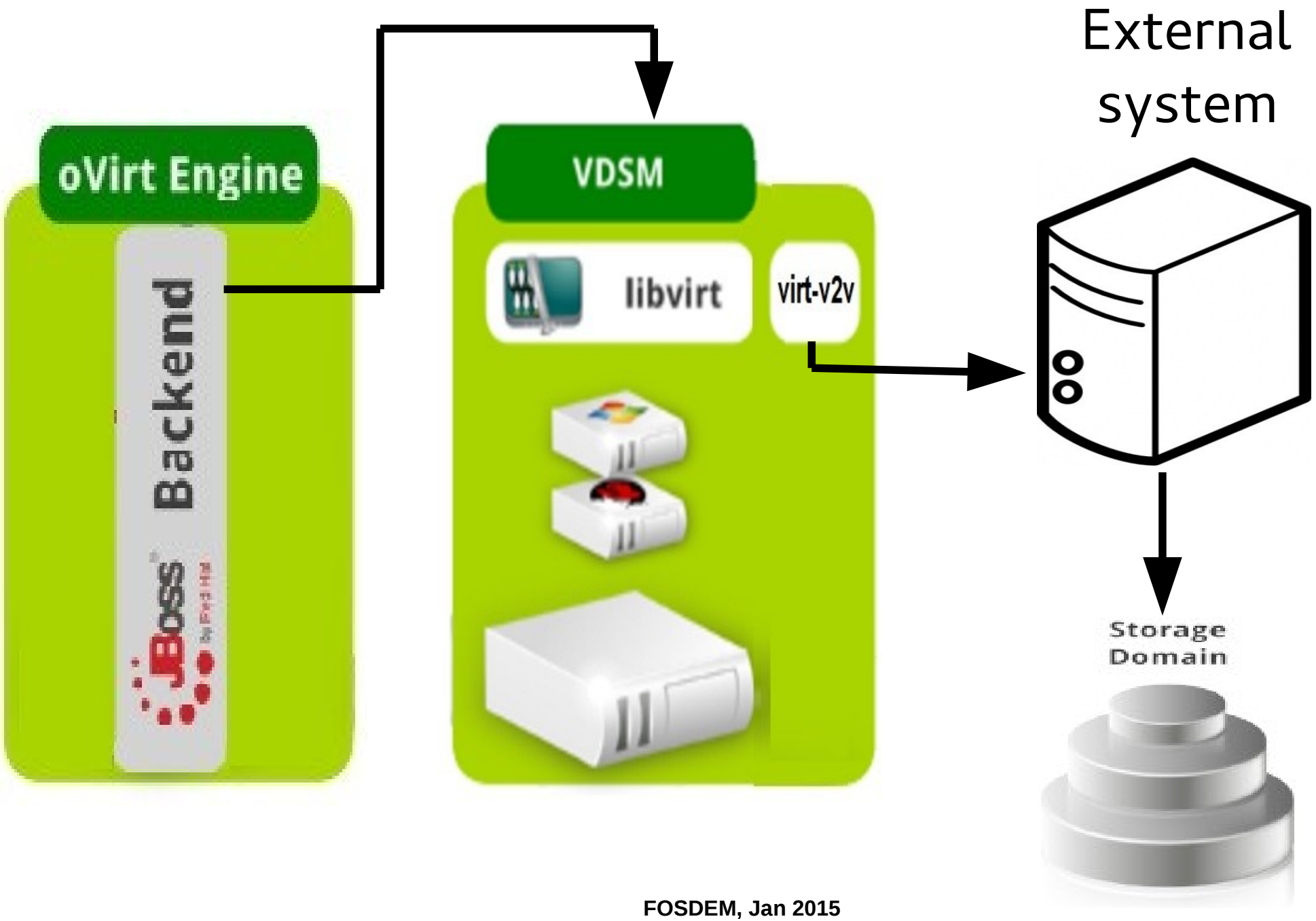
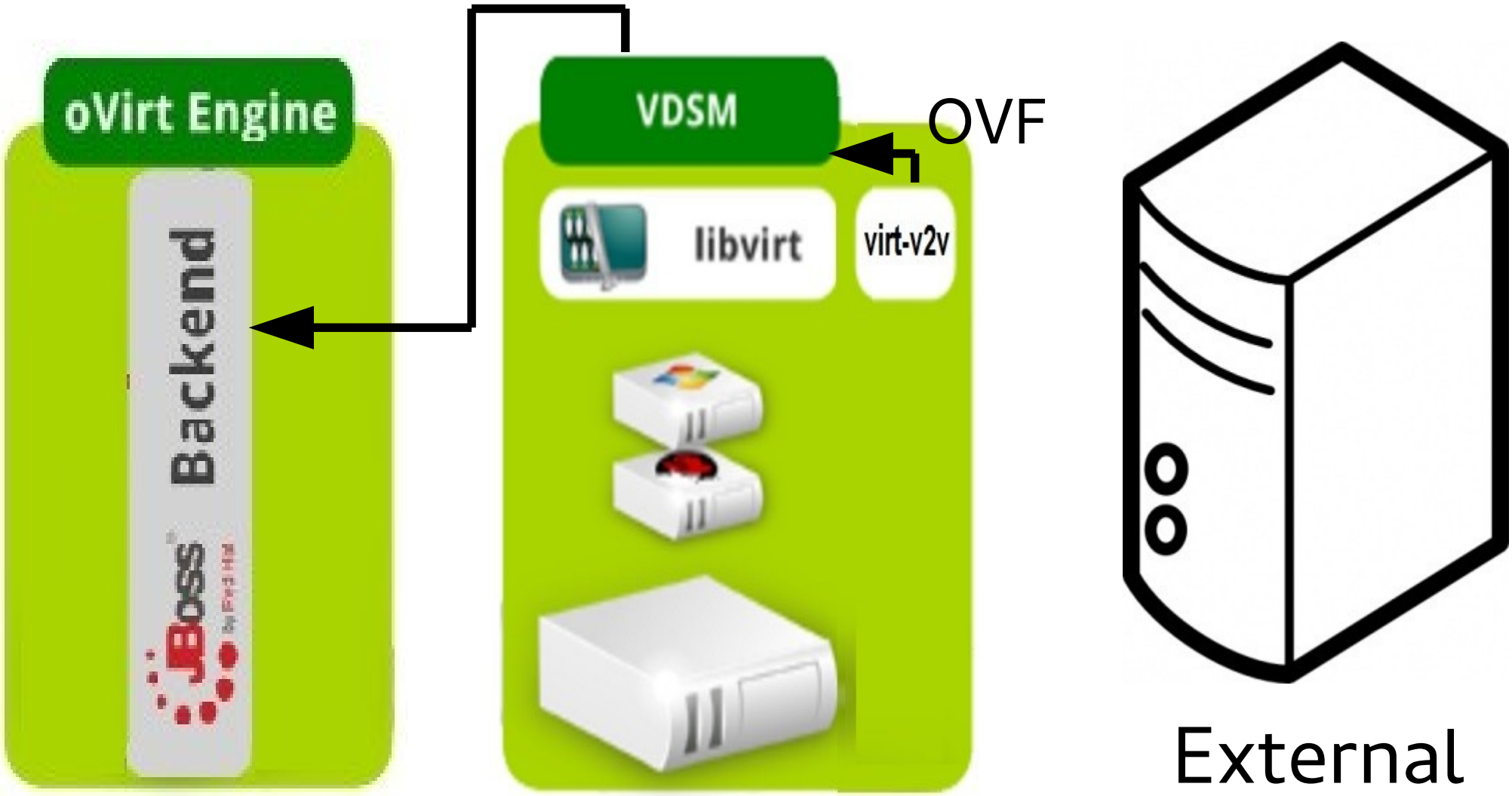
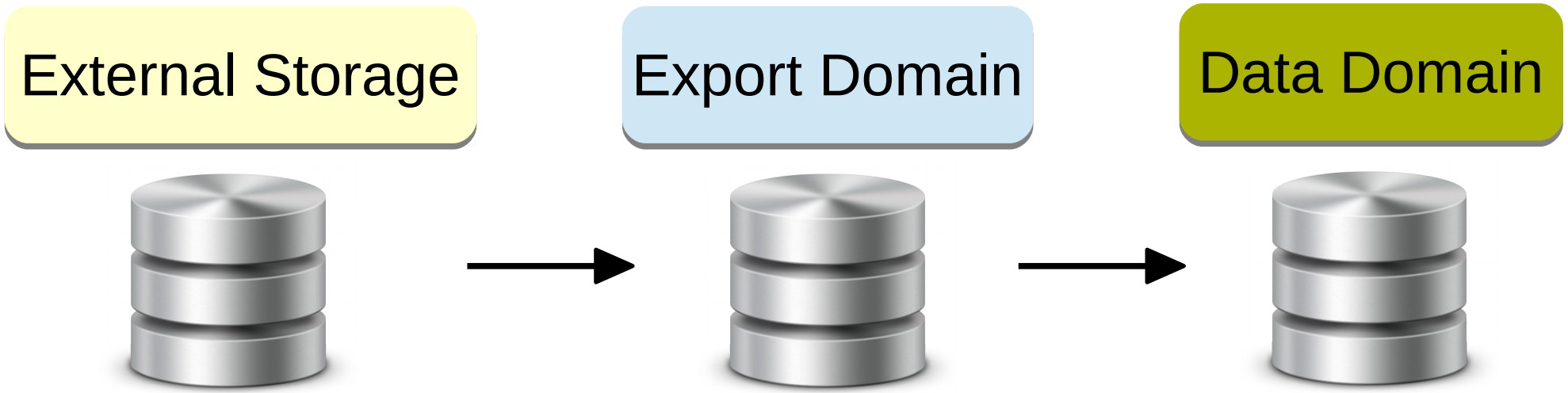


oVirt Convert VM from external provider



How do we make the conversion faster?



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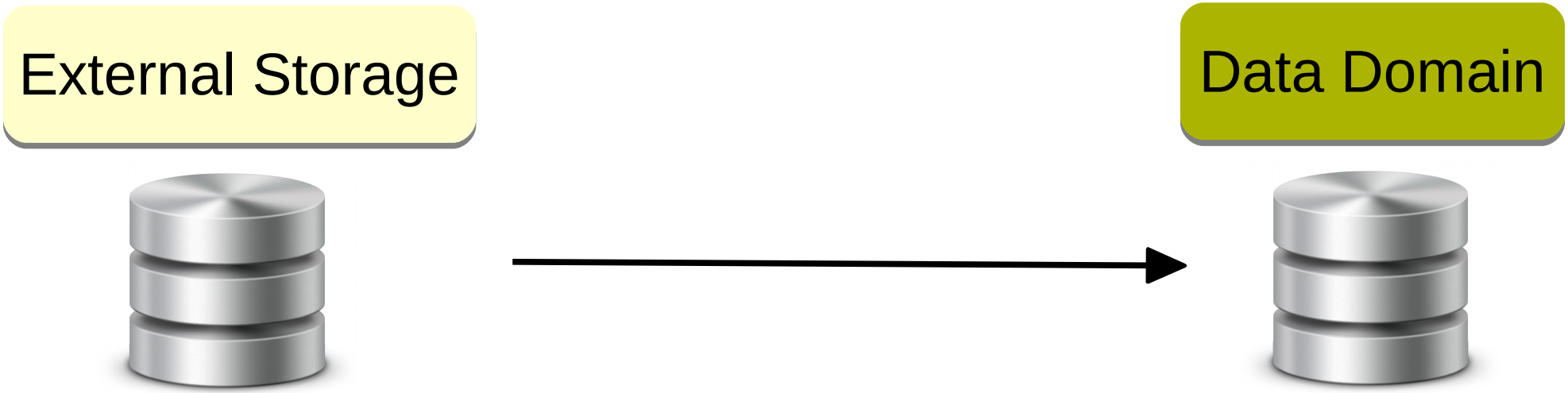
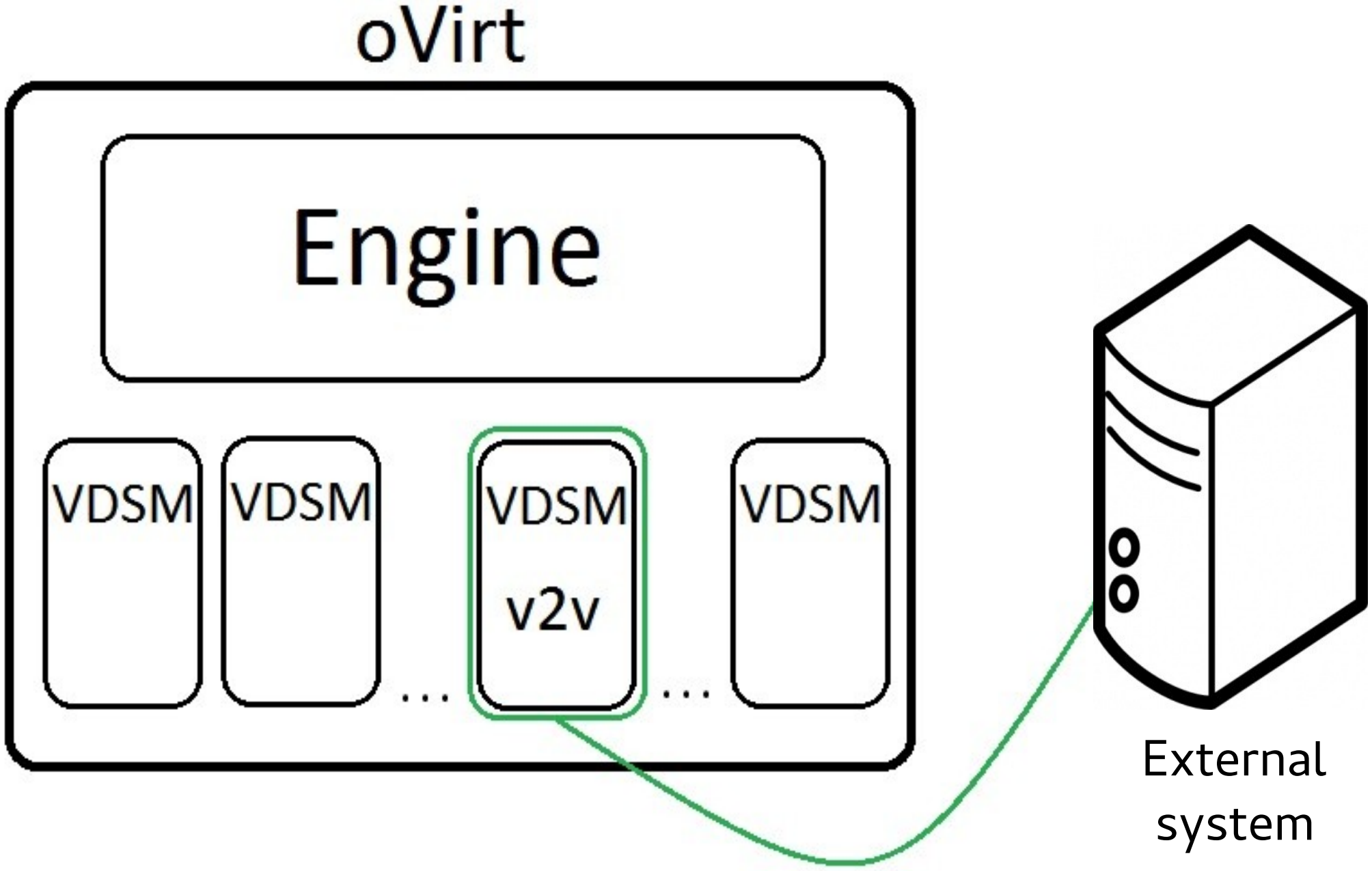


Using a proxy



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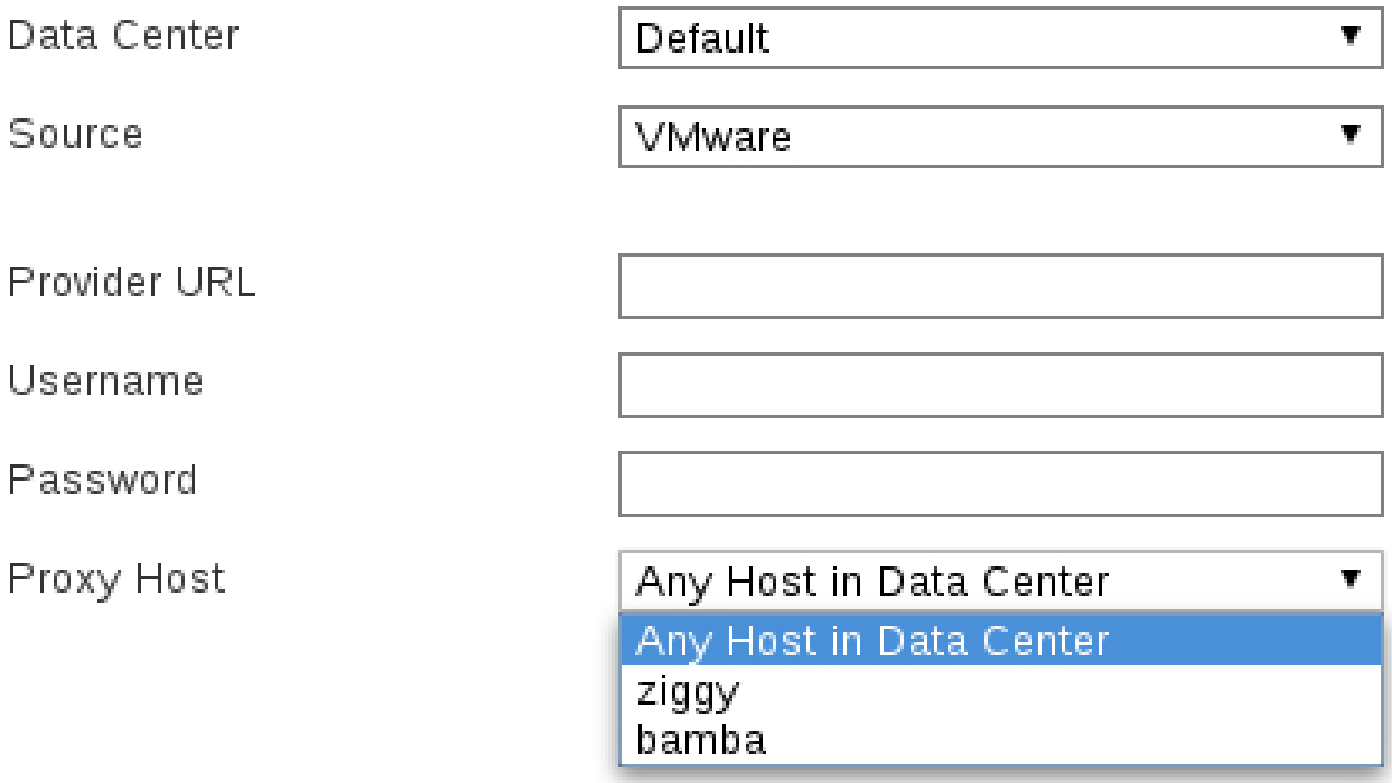
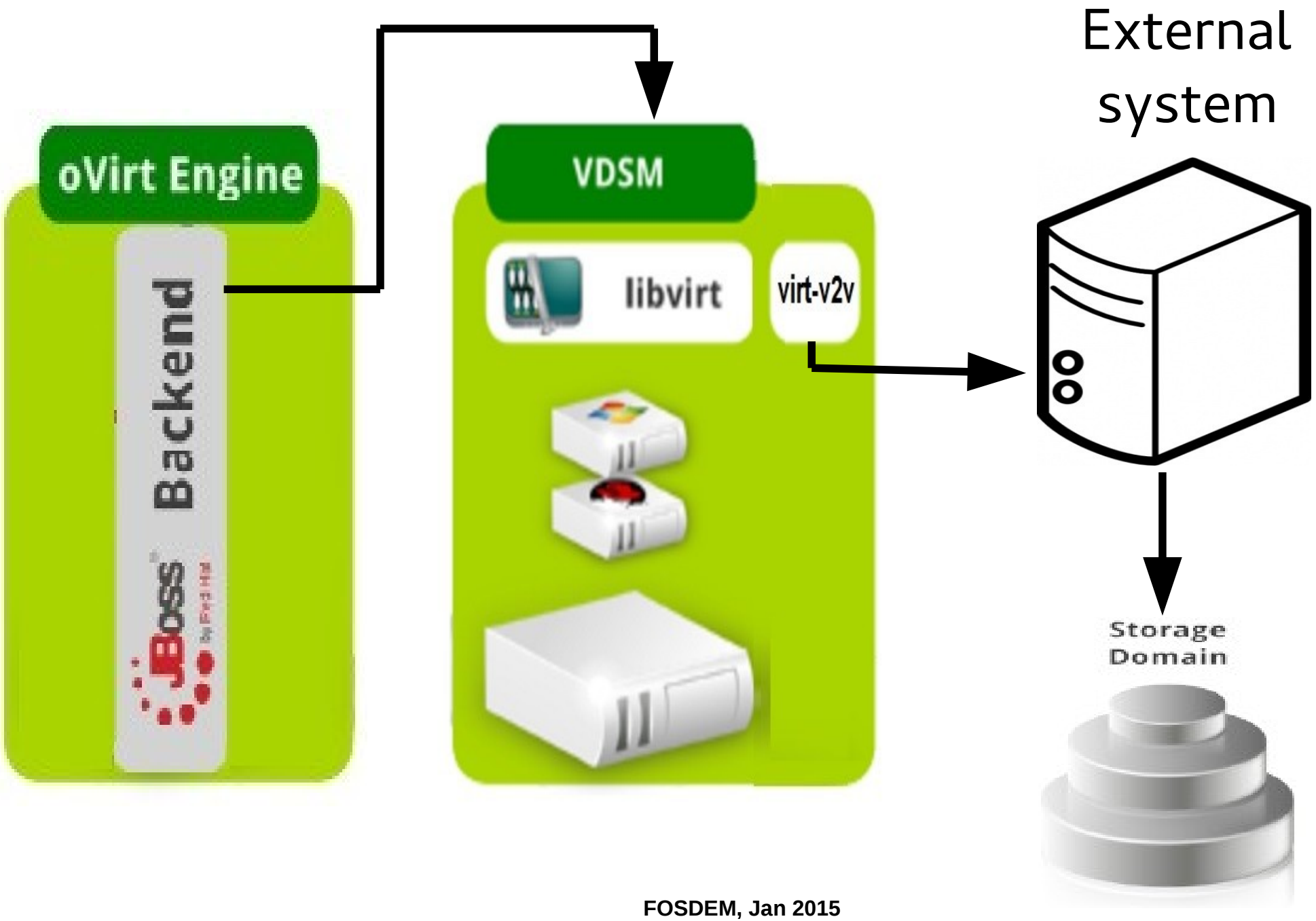


oVirt Robustness



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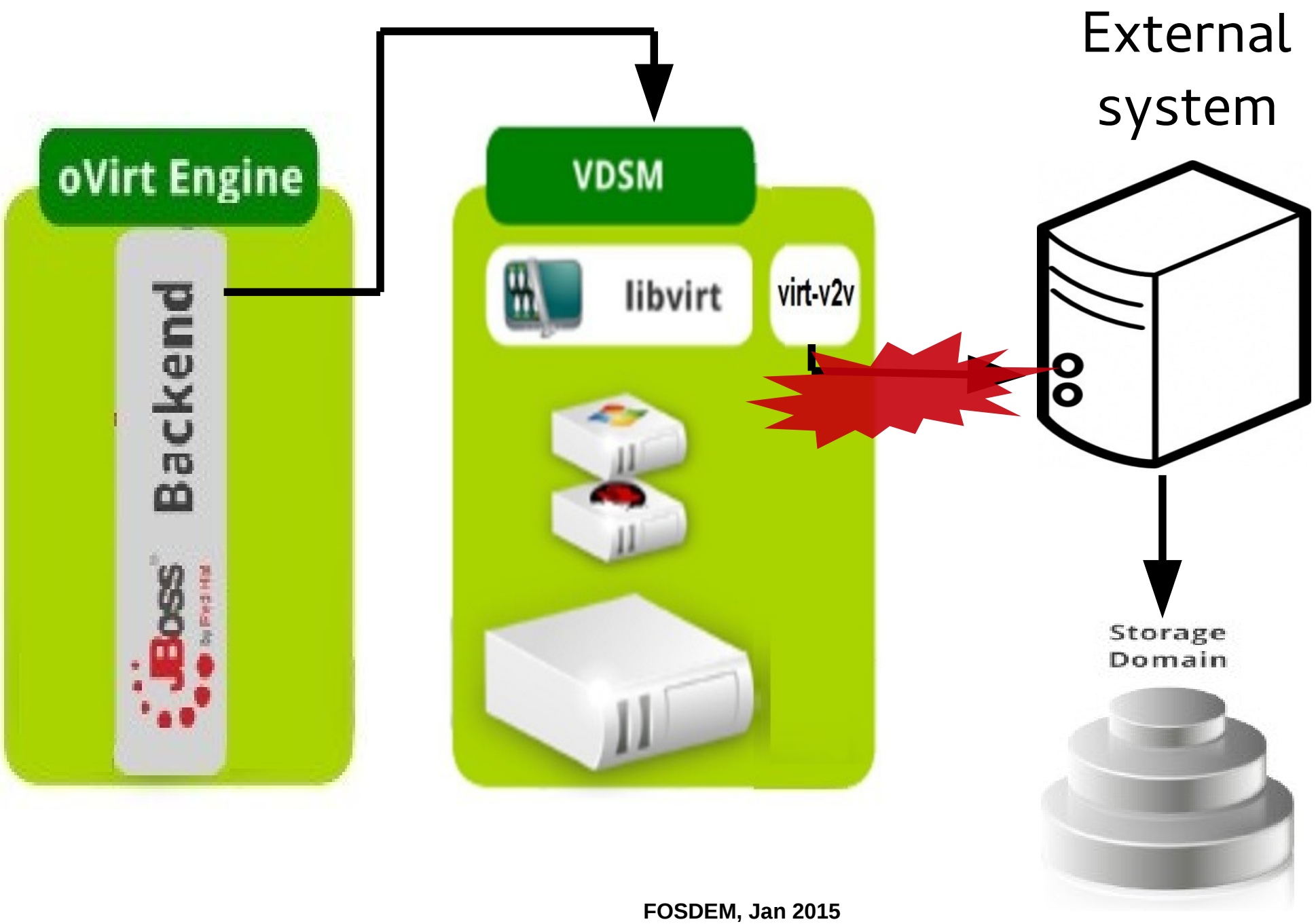

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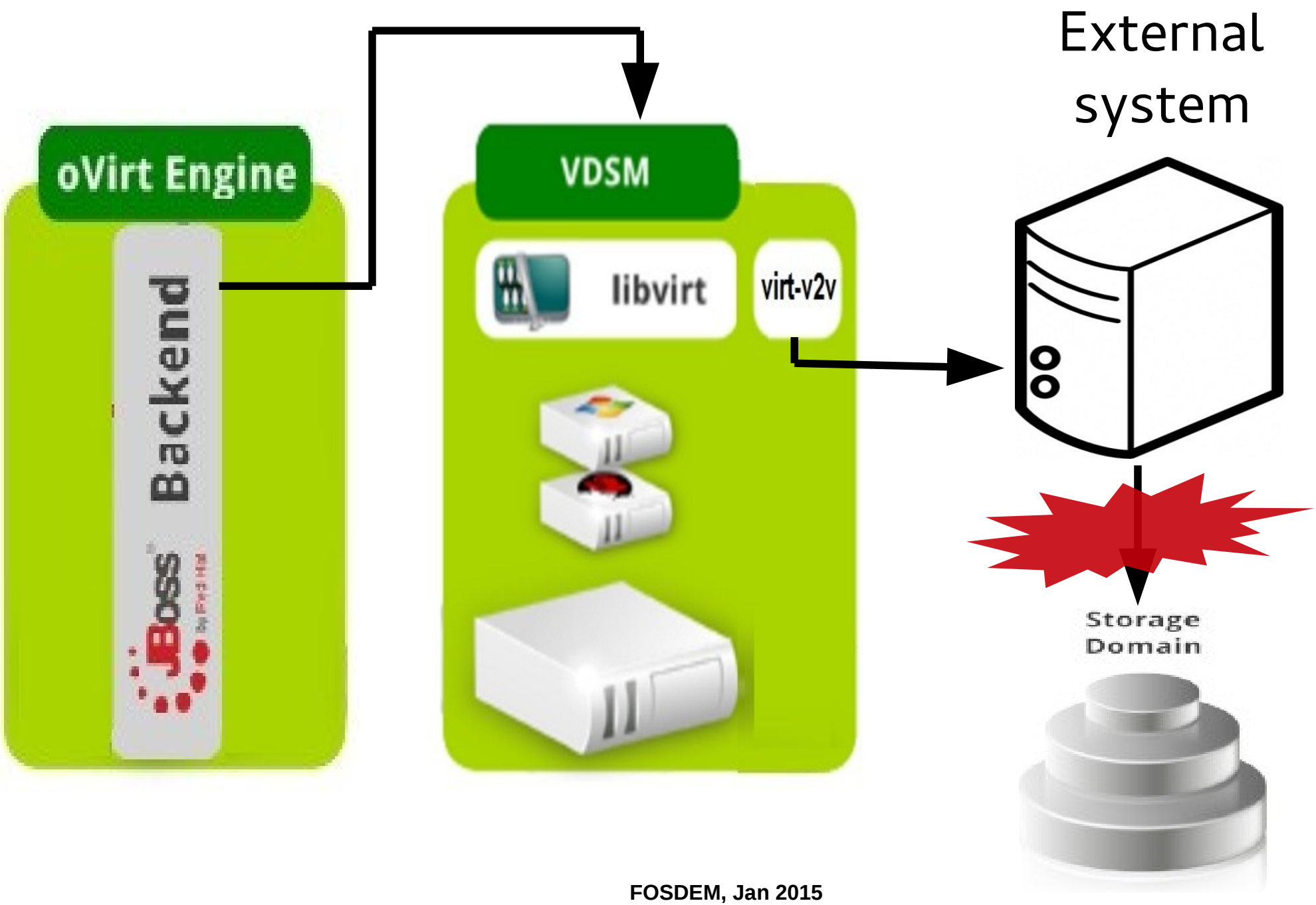

THANK YOU!

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