

Welcome
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OS EC
FORUM 2019

LET'S MAKE **IT** BETTER

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Let's make IT better!

ovirt 11

RHV – ~~10~~ kroków do pełni szczęścia

Krzysztof Pogorzelski
[OSEC]

RHV vs oVirt

- oVirt – projekt społecznościowy
- RHV – produkt komercyjny
- Oba – Open Source

Trzy oblicza RHV

- Standalone Manager
- Self-Hosted Engine
- Red Hat Hyperconverged Infrastructure for Virtualization
(RHHI-V)

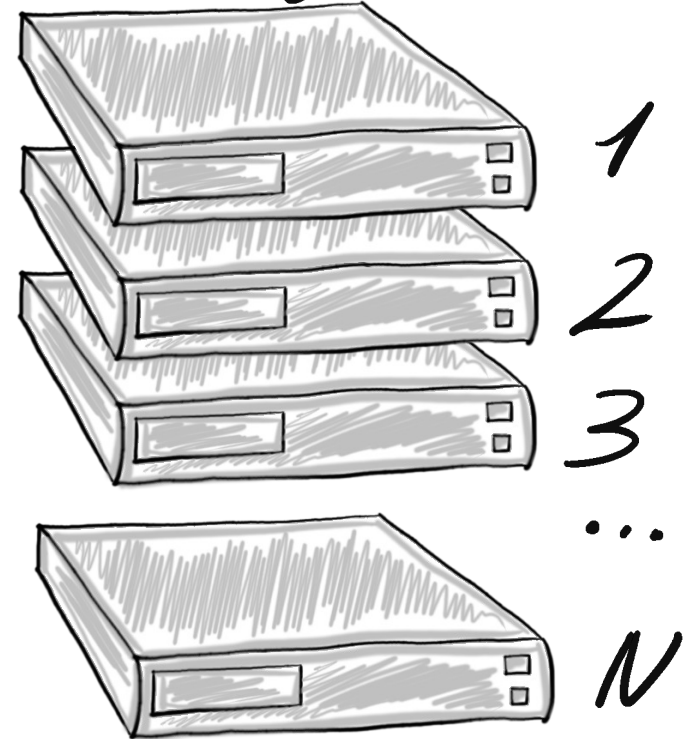
Standalone Manager



STORAGE



NODE



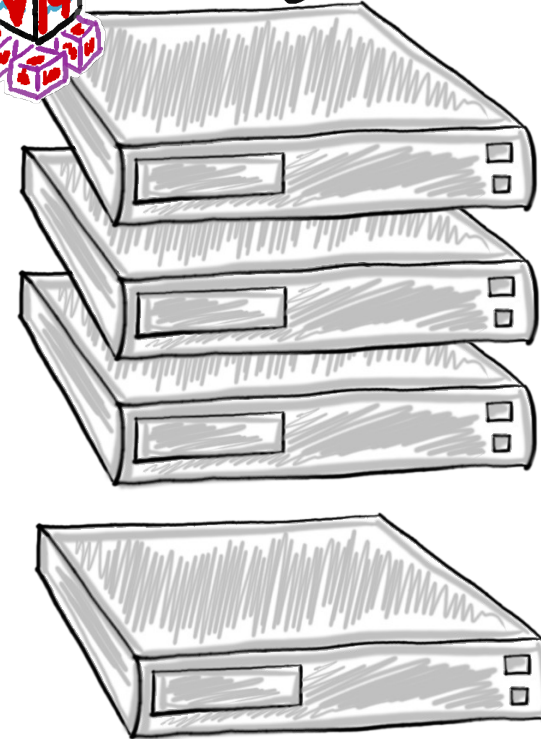
Self-Hosted Engine



STORAGE



NODE



1

2

3

...

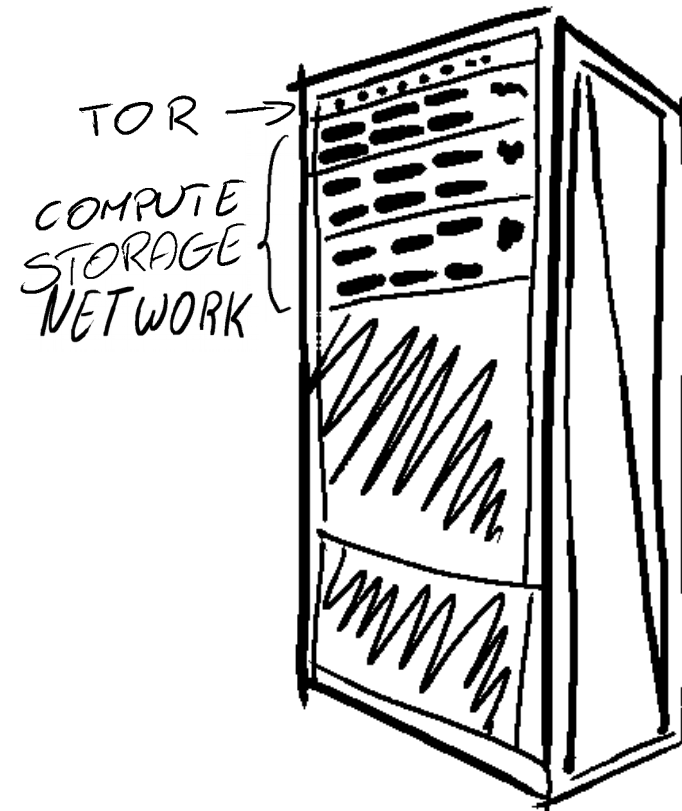
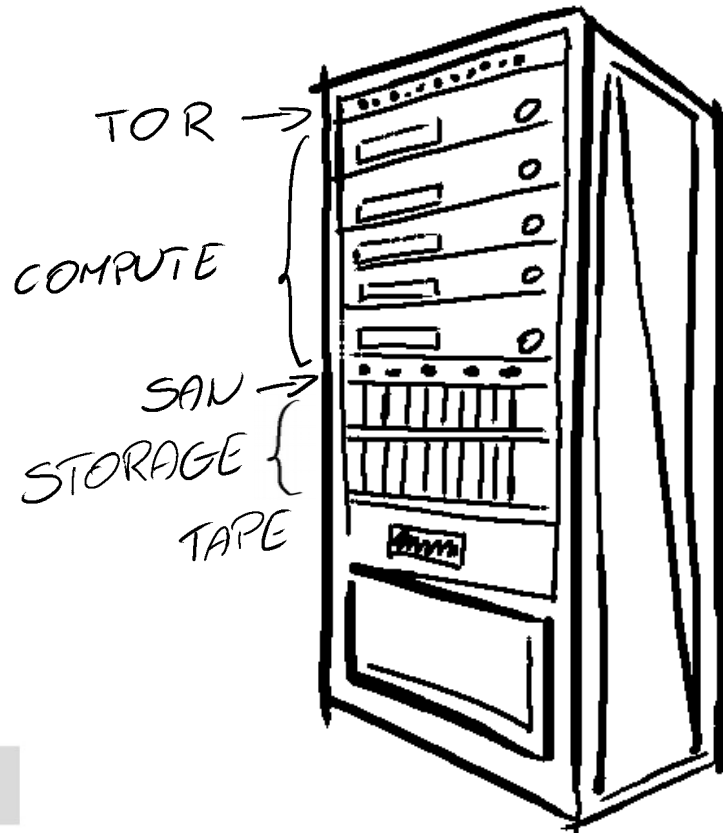
N

Infrastruktura tradycyjna vs hiperkonwergentna

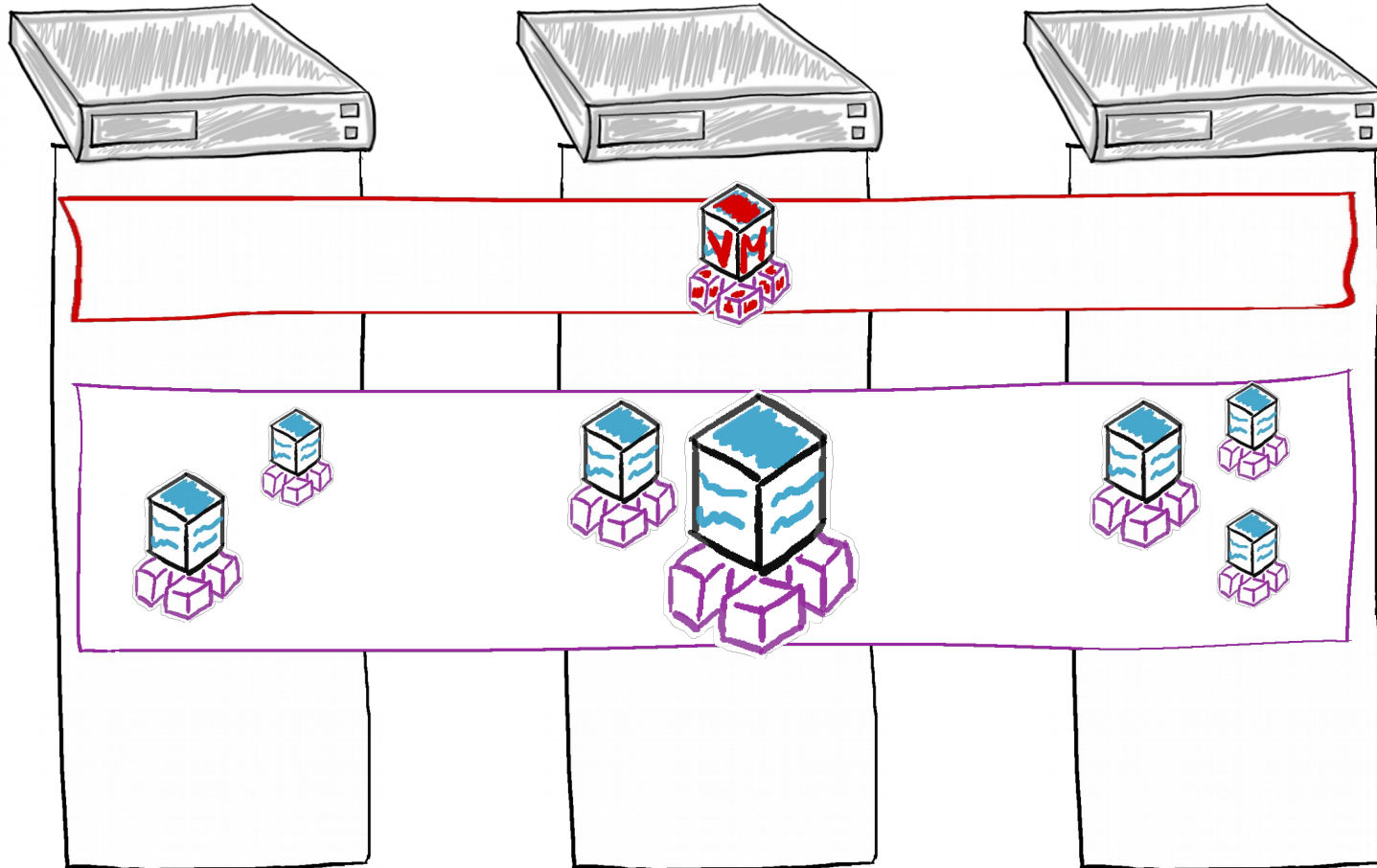
Hiper - pierwszy człon wyrazów złożonych wskazujący na nadmiar lub ponadwymiarowość czegoś albo wskazujący na wielkość lub wysoki poziom czegoś

Konwergencja - pojęcie oznaczające zbieżność lub powstawanie zbieżności

Infrastruktura tradycyjna vs hiperkonwergentna



RHHI-V



ENGINE

DATA

Co nam daje hci ?

- wysoka dostępność infrastruktury
- uproszczenie infrastruktury
- łatwość zarządzania
- prostsza automatyzacja
- niska latencja operacji dyskowych

Instalacja

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```
root@node1:~  
[kporze@devnull ~]$ ssh root@node1  
Last login: Wed May 29 11:07:39 2019 from node1.osec.lab  
  
node status: OK  
See `nodectl check` for more information  
  
Admin Console: https://172.20.245.10:9090/  
  
[root@node1 ~]#
```

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RED HAT VIRTUALIZATION HOST 4.3.0 (EL7.6) root

Virtualization

Node Status

Health ok

Current Layer [rhvh-4.3.0.7-0.20190512.0+1](#) Rollback

Virtual Machines 0 Running

System

Networking Information: [View](#)

System Logs: [View](#)

Storage: [View](#)

SSH Host Key: [View](#)

OVIRT NODE 4.3.2 root ▾

Dashboard
Hosted Engine

oVirt

Hosted Engine Setup

Configure and install a highly-available virtual machine that will run oVirt Engine to manage multiple compute nodes, or add this system to an existing hosted engine cluster.

Hosted Engine
Deploy oVirt hosted engine on storage that has already been provisioned

[Start](#)

Hyperconverged
Configure Gluster storage and oVirt hosted engine

[Start](#)

[Getting Started](#) [Installation Guide](#) [More Information](#) [RHV Documentation](#)

OVIRT NODE 4.3.2



Dashboard



Hosted
Engine

Gluster Configuration



Run Gluster Wizard

Run Gluster Wizard For Single Node 

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Dashboard

Hosted Engine

Gluster Deployment

Hosts FQDNs Packages Volumes Bricks Review

1 — 2 — 3 — 4 — 5 — 6

Host1

Host2

Host3 ⓘ

Cancel < Back Next >

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Dashboard

Hosted Engine

Gluster Deployment

Hosts FQDNs Packages Volumes Bricks Review

1 — 2 — 3 — 4 — 5 — 6

Use same hostnames as in previous step

Host2:

Host3:

i Provide the address used to add the additional hosts to be managed by Hosted Engine preferably FQDN or IP address. And both FQDN needs to be added in known_hosts file.

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Hosted Engine

Gluster Deployment

Hosts FQDNs Packages Volumes Bricks Review

1 2 3 4 5 6

Repositories

Packages

Update Hosts

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Dashboard

Hosted Engine

Gluster Deployment

Hosts (1) — FQDNs (2) — Packages (3) — Volumes (4) — Bricks (5) — Review (6)

Name	Volume Type	Arbiter	Brick Dirs	
engine	Replicate	<input type="checkbox"/>	/gluster_bricks/engine/engine	
data	Replicate	<input type="checkbox"/>	/gluster_bricks/data/data	
vmstore	Replicate	<input type="checkbox"/>	/gluster_bricks/vmstore/vmstor	

[+ Add Volume](#)

i First volume in the list will be used for hosted-engine deployment

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Dashboard

Hosted Engine

Gluster Deployment

Hosts FQDNs Packages Volumes Bricks Review

1 — 2 — 3 — 4 — 5 — 6

Raid Information ⓘ

Raid Type: RAID 6

Stripe Size(KB): 256

Data Disk Count: 12

Brick Configuration

Select Host: node1.osec.lab

LV Name	Device Name	LV Size(GB)	Thinp	Mount Point	Enable Dedupe & Compression
engine	/dev/sdb	100	<input type="checkbox"/>	/gluster_bricks/engine	<input type="checkbox"/>
data	/dev/sdb	500	<input checked="" type="checkbox"/>	/gluster_bricks/data	<input type="checkbox"/>
vmstore	/dev/sdb	500	<input checked="" type="checkbox"/>	/gluster_bricks/vmstore	<input type="checkbox"/>

Configure LV Cache

ⓘ Arbitrator bricks will be created on the third host in the host list.

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Dashboard

Hosted Engine

Gluster Deployment

Hosts (1) — FQDNs (2) — Packages (3) — Volumes (4) — Bricks (5) — Review (6)

```
ok: [node1.osec.lab]

TASK [gluster.infra/roles/firewall_config : check if required variables are set] ***
skipping: [node1.osec.lab]
skipping: [node2.osec.lab]
skipping: [node3.osec.lab]

TASK [gluster.infra/roles/firewall_config : Open/Close firewalld ports] *****
changed: [node3.osec.lab] => (item=2049/tcp)
changed: [node3.osec.lab] => (item=54321/tcp)
changed: [node1.osec.lab] => (item=2049/tcp)
changed: [node3.osec.lab] => (item=5900/tcp)
changed: [node3.osec.lab] => (item=5900-6923/tcp)
```

Cancel < Back Close

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OVIRT NODE 4.3.2

Dashboard

Hosted Engine

Hosted Engine Deployment

VM Engine Prepare VM Storage Finish

1 2 3 4 5

VM Settings

Engine VM FQDN	<input type="text" value="engine.osec.lab"/> <input type="button" value="Validate"/>
MAC Address	<input type="text" value="52:54:00:12:34:ab"/>
Network Configuration	<input type="text" value="Static"/>
VM IP Address	<input type="text" value="172.20.245.13"/> / <input type="text" value="24"/>
Gateway Address	<input type="text" value="172.20.245.1"/>
DNS Servers	<input type="text" value="77.55.217.62"/> <input type="button" value="-"/> <input type="button" value="+"/>
Bridge Interface	<input type="text" value="eno1"/>
Root Password	<input type="password" value="....."/> <input type="button" value="eye"/>
Root SSH Access	<input type="text" value="Yes"/>
Number of Virtual CPUs	<input type="text" value="4"/>
Memory Size (MiB)	<input type="text" value="16348"/> 59,075MB available

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Dashboard
Hosted Engine

Network Configuration: Static

VM IP Address: 172.20.245.13 / 24

Gateway Address: 172.20.245.1

DNS Servers: 77.55.217.62

Bridge Interface: eno1

Root Password:

Root SSH Access: Yes

Number of Virtual CPUs: 4

Memory Size (MiB): 16348 (59,075MB available)

Advanced

Root SSH Public Key: [Empty]

Edit Hosts File:

Bridge Name: ovirtmgmt

Gateway Address: 172.20.245.1

Host FQDN: node1.osec.lab Validate

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OVIRT NODE 4.3.2

Dashboard

Hosted Engine

Hosted Engine Deployment

VM (1) Engine (2) Prepare VM (3) Storage (4) Finish (5)

Engine Credentials

Admin Portal Password

Notification Settings

Server Name

Server Port Number

Sender E-Mail Address

Recipient E-Mail Addresses - +

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OVIRT NODE 4.3.2

Dashboard

Hosted Engine

VM Engine Prepare VM Storage Finish

1 2 3 4 5

Please review the configuration. Once you click the 'Prepare VM' button, a local virtual machine will be started and used to prepare the management services and their data. This operation may take some time depending on your hardware.

VM

- Engine FQDN: engine.osec.lab
- MAC Address: 52:54:00:12:34:ab
- Network Configuration: Static
- VM IP Address: 172.20.245.13/24
- Gateway Address: 172.20.245.1
- DNS Servers: 77.55.217.62
- Root User SSH Access: yes
- Number of Virtual CPUs: 4
- Memory Size (MiB): 16348
- Root User SSH Public Key: (None)
- Add Lines to /etc/hosts: yes
- Bridge Name: ovirtmgmt

Engine

- SMTP Server Name: localhost
- SMTP Server Port Number: 25
- Sender E-Mail Address: root@localhost
- Recipient E-Mail Addresses: root@localhost

Cancel < Back Prepare VM


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Dashboard
Hosted Engine

Hosted Engine Deployment

VM (1) — Engine (2) — Prepare VM (3) — Storage (4) — Finish (5)



Execution completed successfully. Please proceed to the next step.

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RED HAT VIRTUALIZATION HOST 4.3.0 (EL7.6) root ▾

Dashboard
Hosted Engine

Hosted Engine Deployment

VM (1) — Engine (2) — Prepare VM (3) — **Storage (4)** — Finish (5)

Please configure the storage domain that will be used to host the disk for the management VM. Please note that the management VM needs to be responsive and reliable enough to be able to manage all resources of your deployment, so highly available storage is preferred.

Storage Settings

i Please note that only replica 1 and replica 3 volumes are supported.

Storage Type:

Storage Connection:

Mount Options:

Advanced

Disk Size (GiB):

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Dashboard
Hosted Engine

Hosted Engine Deployment

VM (1) — Engine (2) — Prepare VM (3) — Storage (4) — Finish (5)

Please review the configuration. Once you click the 'Finish Deployment' button, the management VM will be transferred to the configured storage and the configuration of your hosted engine cluster will be finalized. You will be able to use your hosted engine once this step finishes.

▼ Storage

Storage Type: glusterfs
Storage Domain Connection: node1 [REDACTED] pl:/engine
Mount Options: backup-volfile-servers=node2.[REDACTED] pl:node3.[REDACTED] pl
Disk Size (GiB): 58

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RED HAT VIRTUALIZATION HOST 4.3.0 (EL7.6) root

Dashboard

Hosted Engine

Hosted Engine Deployment

VM (1) — Engine (2) — Prepare VM (3) — Storage (4) — Finish (5)



Hosted engine deployment complete!

Close

Live demo

- instalacja VM
- migracja
- template
- snapshot
- sysprep / cloud-init
- affinity

Wszystko co chcecie wiedzieć a nie powiedziałem jest tu:

- <https://access.redhat.com/products/red-hat-virtualization/>
- <https://www.ovirt.org/>
- <https://en.wikipedia.org/wiki/OVirt>



Dziękuję

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