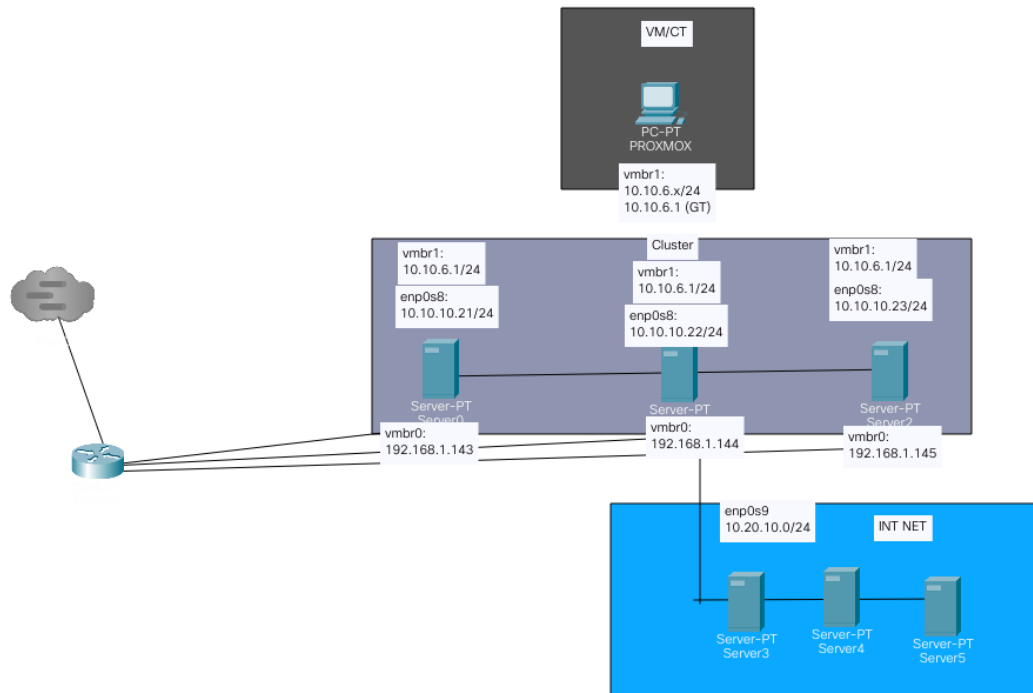


Crea un servidor de màquines virtuals

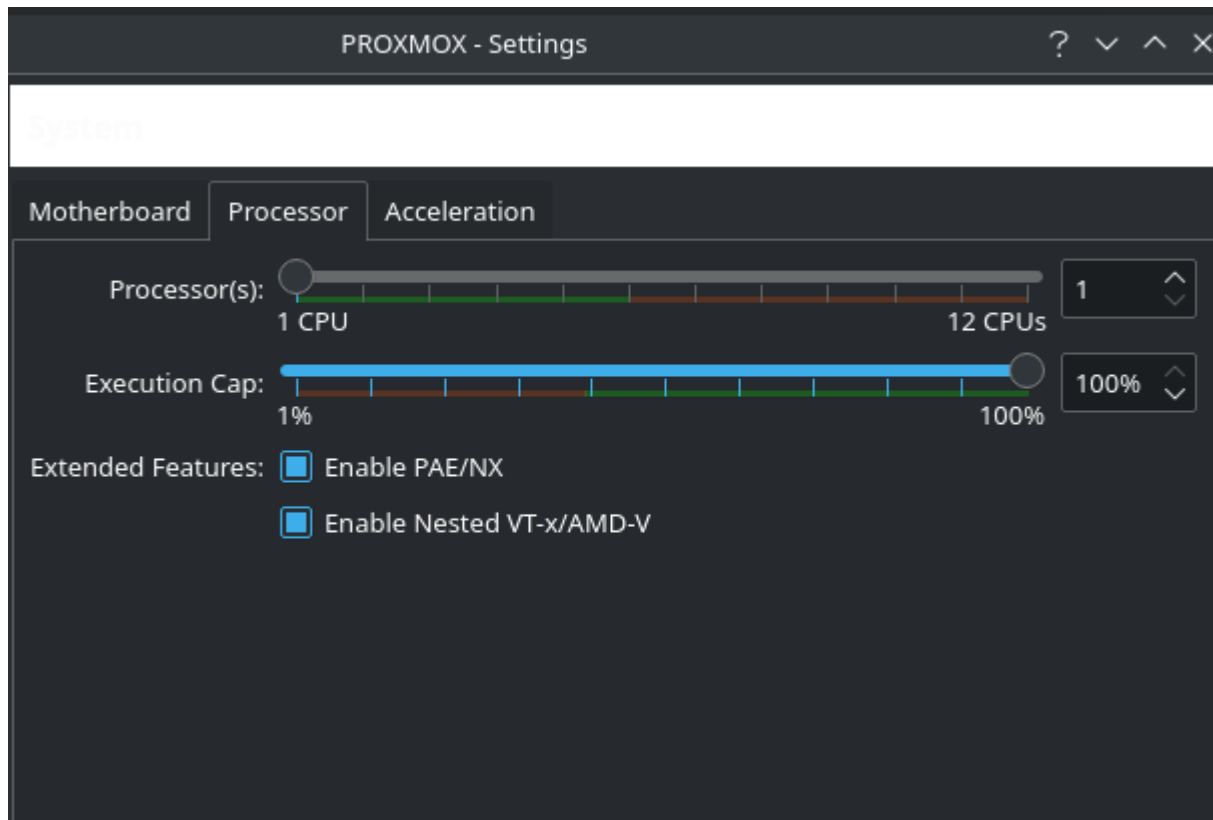
Crea un servidor de màquines virtuals	1
Infraestructura	2
Prerequisits	3
Instal·lació (x3*)	5
Configuracio de xarxa de proxmox	9
Instalacio de CEPH	10
Configuracio de cluster	13
Creacio del cluster	13
Instalacio de Ceph en les maquines secundaries	17
Compartir discos amb el cluster	18
Creacio de CEPH POOLS	20
Creacio de maquina virtual	21
CT	21
VM	23
Permetre acces a interent per les maquines virtuals	26
Configuracio de la maquina servidor	26
Configuracio de les maquines virtuals	26
Comprovacio del funcionament	27
Comprovacio de xarxa	28
Comprovacio de migracio	28
Comprovacio de migracio	29
Comprovacio de xarxa en migració	29
Comprovacio de High Availability	30
Errors	33
Ghost monitor	33
SOLUCIO	34
No auto migration/HA	36
Crear un HA Group	37
Altres configuracions a tindre en compte	39

Infraestructura



Prerequisites

El principal requisit, es que la maquina virtual tingui la virtualizacio activada.



Per això he fet falta executar la següent comanda, ja que en el meu cas m'h apareixia fosc el check:

```
...
```

```
VBoxManage modifyvm $VMNAME --nested-hw-virt on
```

```
...
```

Tambe es necessari que tingui 3 dispositius d'emmagatzematge i 3 interfícies de xarxa.

 **General**

Name:

PROXMOX

Operating System:

Oracle (64-bit)

Groups:

CLUSTER M11_UF4

 **System**

Base Memory:

3060 MB

Boot Order:

Floppy, Optical, Hard Disk

Acceleration:

VT-x/AMD-V, Nested Paging, PAE/NX, KVM Paravirtualization

 **Display**

Video Memory:

16 MB

Graphics Controller:

VMSVGA

Remote Desktop Server:

Disabled

Recording:

Disabled

 **Storage**

Controller:

IDE

IDE Secondary Device 0:

[Optical Drive] Empty

Controller:

SATA

SATA Port 0:

PROXMOX.vdi (Normal, 30,00 GB)

SATA Port 1:

PROXMOX_1.vdi (Normal, 10,00 GB)

SATA Port 2:

PROXMOX_2.vdi (Normal, 10,00 GB)

SATA Port 3:

[Optical Drive] Empty

 **Audio**

Host Driver:

PulseAudio

Controller:

ICH AC97

 **Network**

Adapter 1:

Intel PRO/1000 MT Desktop (Bridged Adapter, enp4s0)

Adapter 2:

Intel PRO/1000 MT Desktop (Internal Network, 'LAN')

Adapter 3:

Intel PRO/1000 MT Desktop (Internal Network, 'CEPHT')

Instal·lació (x3*)

**repetirem el proces en 3 dispositius diferents, atribuint una ip+1 a l'anterior.*

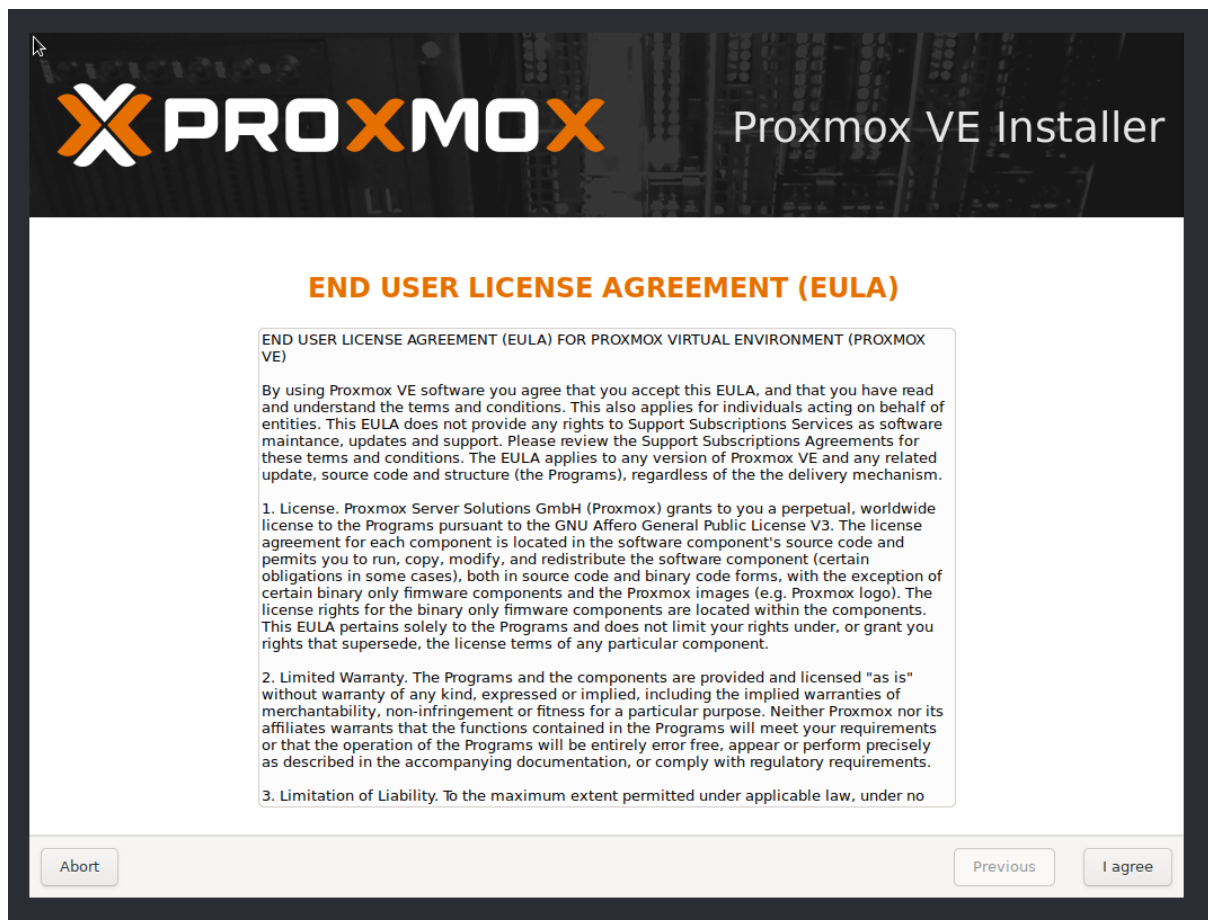
El primer pas és obtenir l'ISO de l'aplicació. Una vegada obtenida l'hem de montar al sistema que hem creat.

<https://www.proxmox.com/en/downloads/category/iso-images-pve>

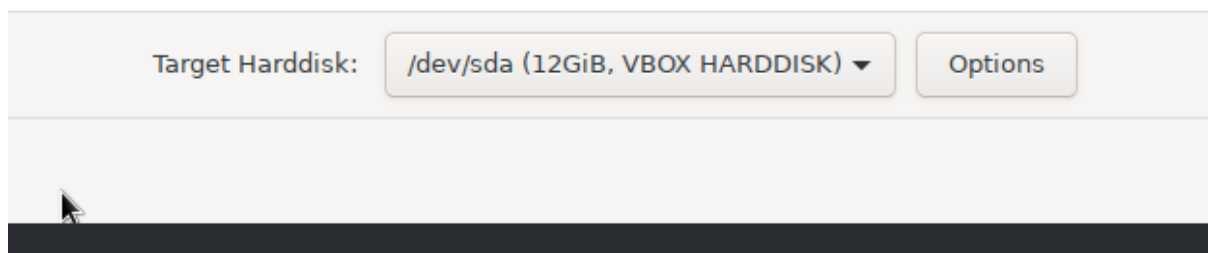
Una vegada iniciem la maquina , haurem de clicar a "install proxmox ve"



Posteriorment hem d'acceptar l'EULA

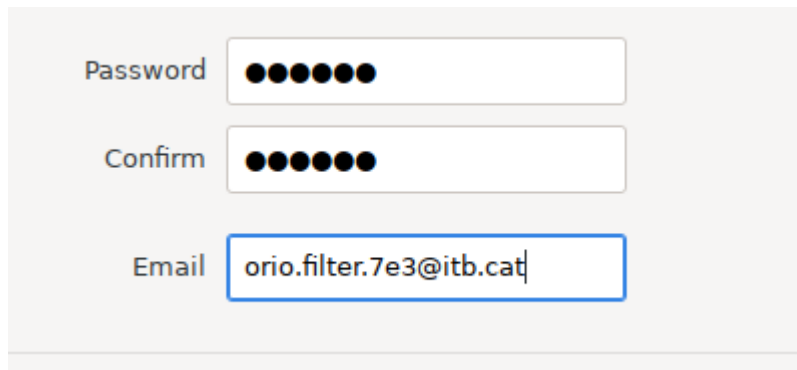


Despres ens demanara que seleccionem el HDD que volem fer servir per l'instalacio.



Posteriorment ens tocara introduir la contrasenya i l'email.

En el nostre cas hem fet servir "ABC123"

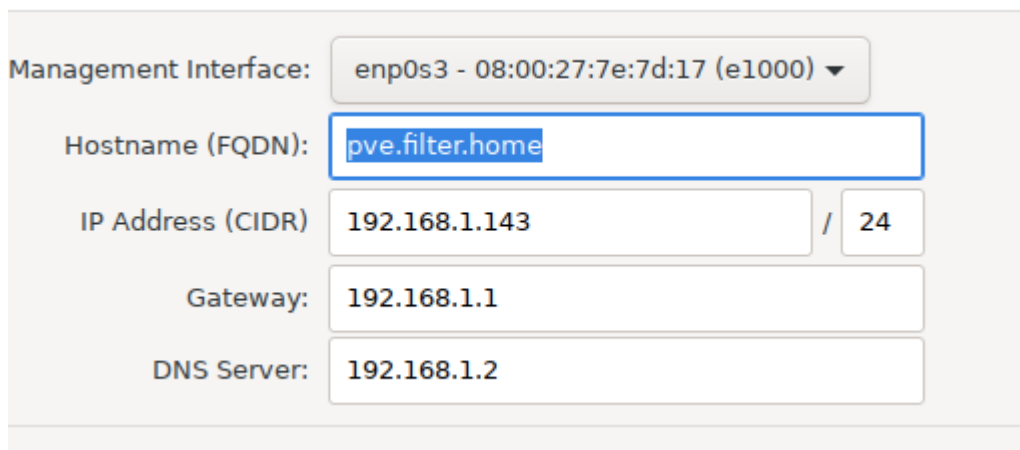


Registration form with three fields:

- Password:** A text input field containing six black dots (••••••).
- Confirm:** A text input field containing six black dots (••••••).
- Email:** A text input field containing the email address `orio.filter.7e3@itb.cat`.

Una vegada hagim introduït la contrasenya, hem de introduir els valors de la xarxa.

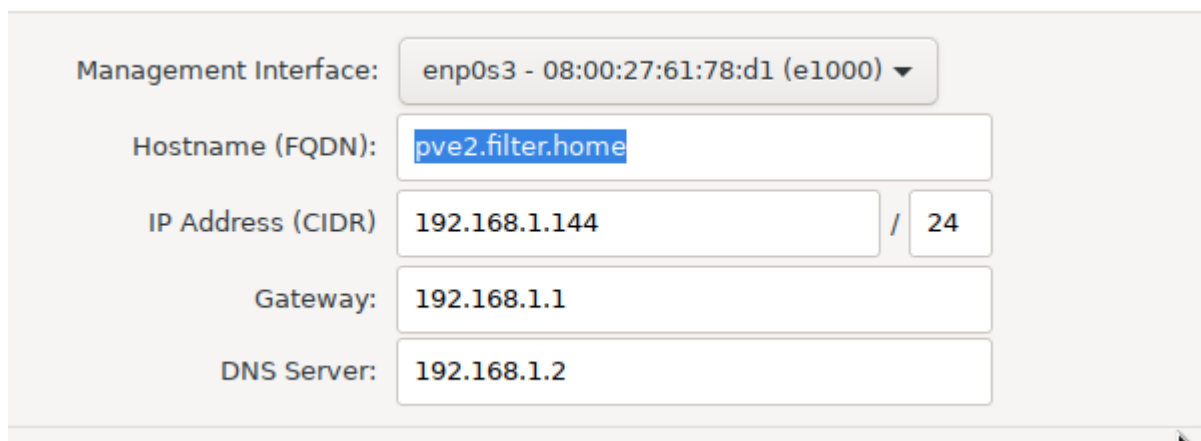
pve_main



Network configuration form for **pve_main**:

- Management Interface:** A dropdown menu showing `enp0s3 - 08:00:27:7e:7d:17 (e1000)`.
- Hostname (FQDN):** A text input field containing `pve.filter.home`.
- IP Address (CIDR):** A text input field containing `192.168.1.143` and a separate box containing `24`.
- Gateway:** A text input field containing `192.168.1.1`.
- DNS Server:** A text input field containing `192.168.1.2`.

pve2



Network configuration form for **pve2**:

- Management Interface:** A dropdown menu showing `enp0s3 - 08:00:27:61:78:d1 (e1000)`.
- Hostname (FQDN):** A text input field containing `pve2.filter.home`.
- IP Address (CIDR):** A text input field containing `192.168.1.144` and a separate box containing `24`.
- Gateway:** A text input field containing `192.168.1.1`.
- DNS Server:** A text input field containing `192.168.1.2`.

Finalment podem clicar a instalar, i ens hem d'esperar a que finalitzi la instal·lació. Una vegada finalitzat, recordar treure el disc abans d'iniciar la màquina.

Option	Value
Filesystem:	ext4
Disk(s):	/dev/sda
Country:	Spain
Timezone:	Europe/Madrid
Keymap:	en-gb
Email:	orio.filter.7e3@itb.cat
Management Interface:	enp0s3
Hostname:	pve
IP CIDR:	192.168.1.143/24
Gateway:	192.168.1.1
DNS:	192.168.1.2

Configuracio de xarxa de proxmox

Una vegada iniciem la maquina, podrem veure la IP+port per connectarnos a web d'administracio.

<http://192.168.1.143:8006>

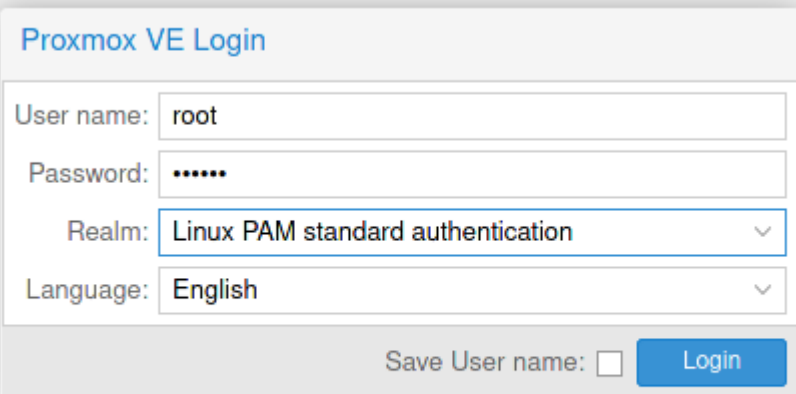
```
Welcome to the Proxmox Virtual Environment.
configure this server - connect to:

https://192.168.1.143:8006/

-----

pve login:
```

Iniciarem sessio amb l'usuari **"root"** i la contrasenya que hem utilitzat durant l'instalacio.

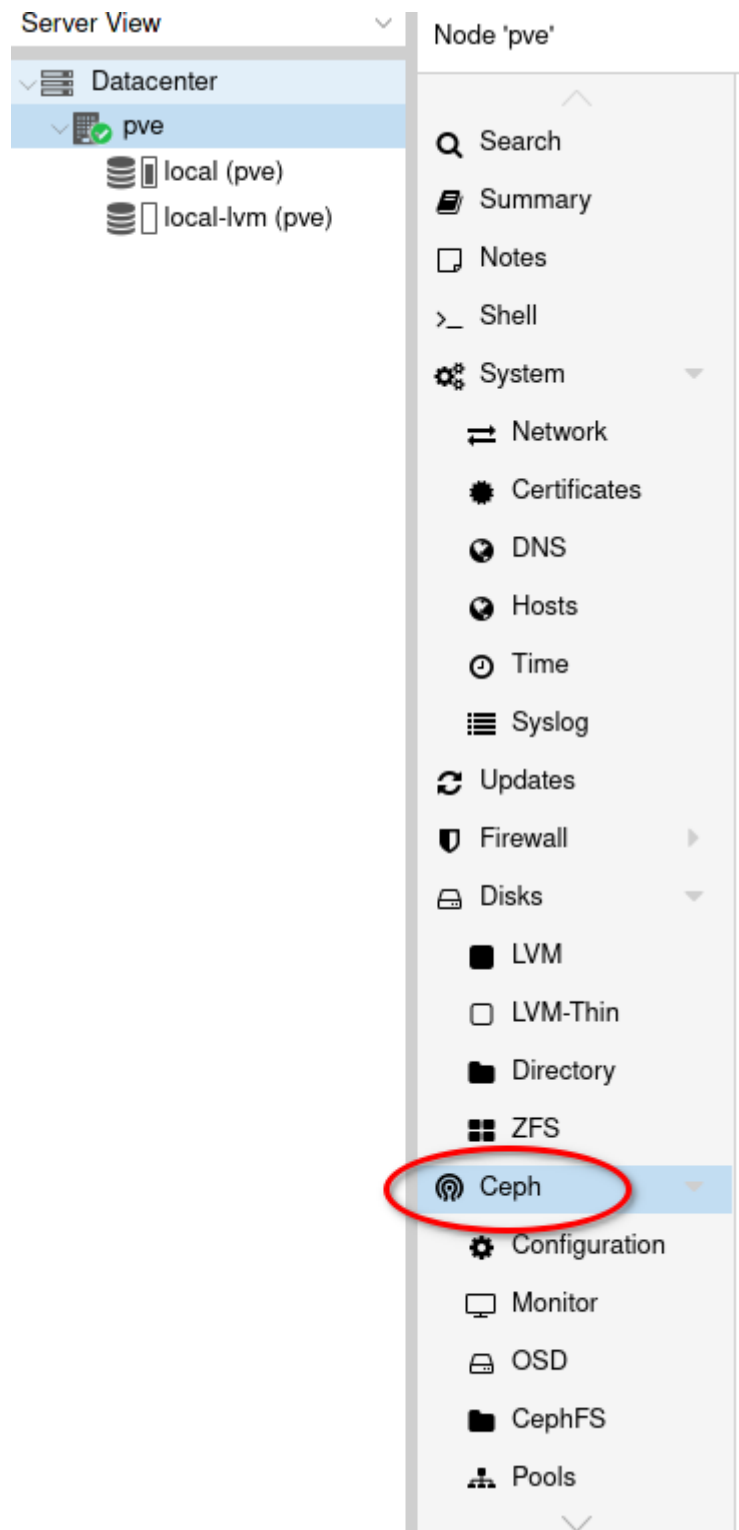


The image shows the Proxmox VE Login interface. It has a title 'Proxmox VE Login' in blue. Below the title are four input fields: 'User name:' with the value 'root', 'Password:' with masked characters '.....', 'Realm:' with a dropdown menu showing 'Linux PAM standard authentication', and 'Language:' with a dropdown menu showing 'English'. At the bottom right, there is a checkbox for 'Save User name:' which is unchecked, and a blue 'Login' button.

Aquesta es la nostra configuracio de xarxa actual:

Node 'pve'									
<div>Search</div> <div>Create Revert Edit Remove Apply Configuration</div>									
Name ↑	Type	Active	Autostart	VLAN a...	Ports/Slaves	Bond Mode	CIDR	Gateway	
enp0s3	Network Device	Yes	No	No					
enp0s8	Network Device	No	No	No					
enp0s9	Network Device	No	No	No					
vmb0	Linux Bridge	Yes	Yes	No	enp0s3		192.168.1.143/24	192.168.1.1	

Instalacio de CEPH



Ceph is not installed on this node.
Would you like to install it now?

Install Ceph

Instaleu deixant els valors per defecte.

Setup

Info

Installation

Configuration

Success

Ceph?

"Ceph is a unified, distributed storage system, designed for excellent performance, reliability, and scalability."

Ceph is currently not installed on this node. This wizard will guide you through the installation. Click on the next button below to begin. After the initial installation, the wizard will offer to create an initial configuration. This configuration step is only needed once per cluster and will be skipped if a config is already present.

Before starting the installation, please take a look at our documentation, by clicking the help button below. If you want to gain deeper knowledge about Ceph, visit ceph.com.

Ceph in the cluster:

Could not detect a ceph installation in the cluster

Ceph version to install:

octopus (15.2)

Help

Advanced ☐

Start octopus installation

Setup

Info

Installation

Configuration

Success

Ceph cluster configuration:

Public Network IP/CIDR:192.168.1.143/24

Cluster Network IP/CIDR:Same as Public Network

First Ceph monitor:

Monitor node:pve

Additional monitors are recommended. They can be created at any time in the Monitor tab.

Setup

Info

Installation

Configuration

Success

Installation successful!

The basic installation and configuration is complete. Depending on your setup, some of the following steps are required to start using Ceph:

1. Install Ceph on other nodes

2. Create additional Ceph Monitors

3. Create Ceph OSDs

4. Create Ceph Pools

To learn more, click on the help button below.

Help

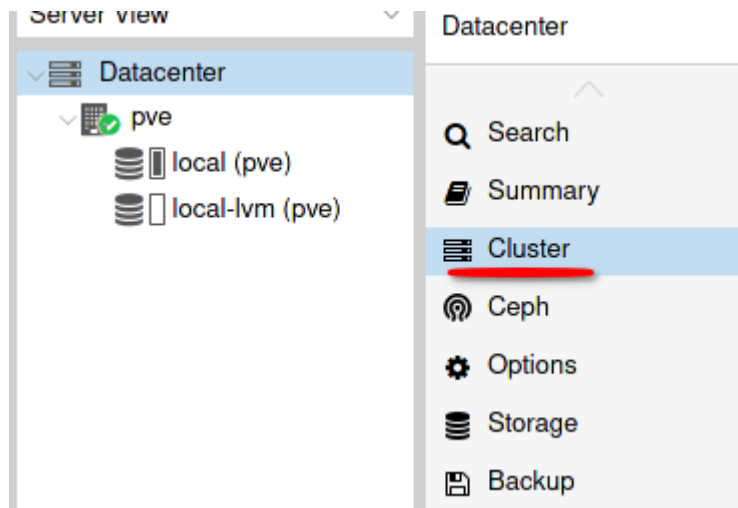
Advanced

Finish

Configuracio de cluster

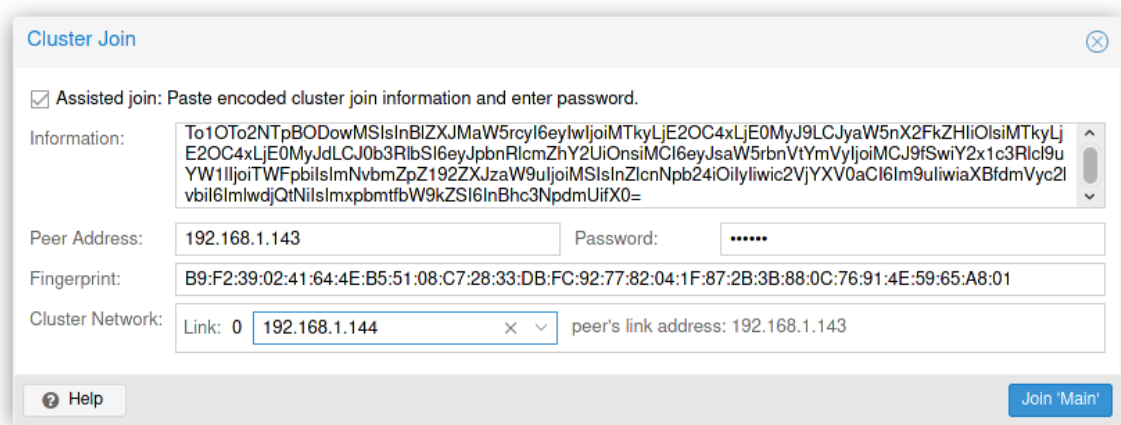
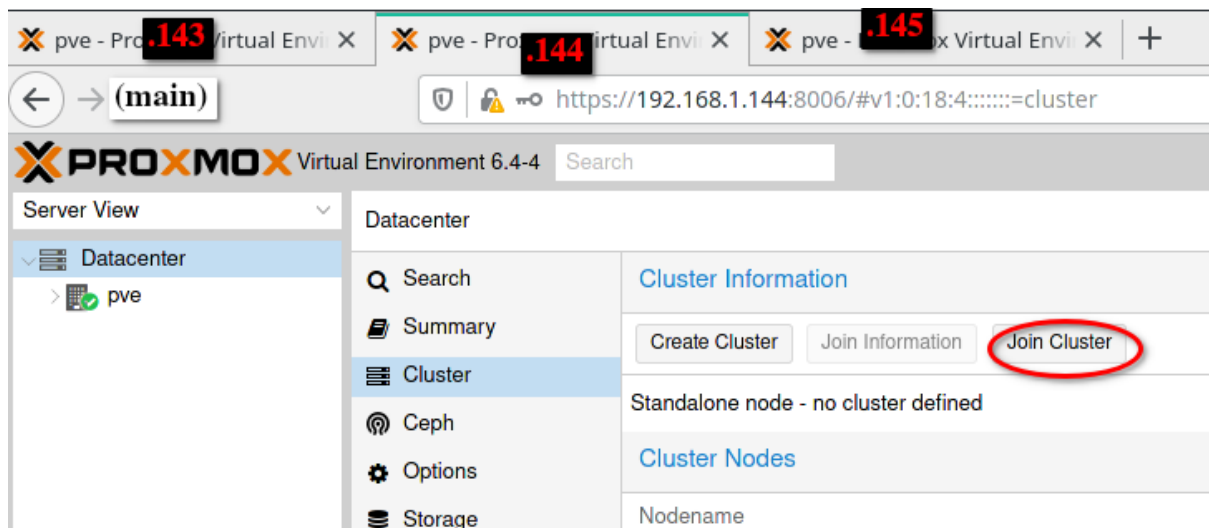
Creacio del cluster

Crearem el cluster principal.

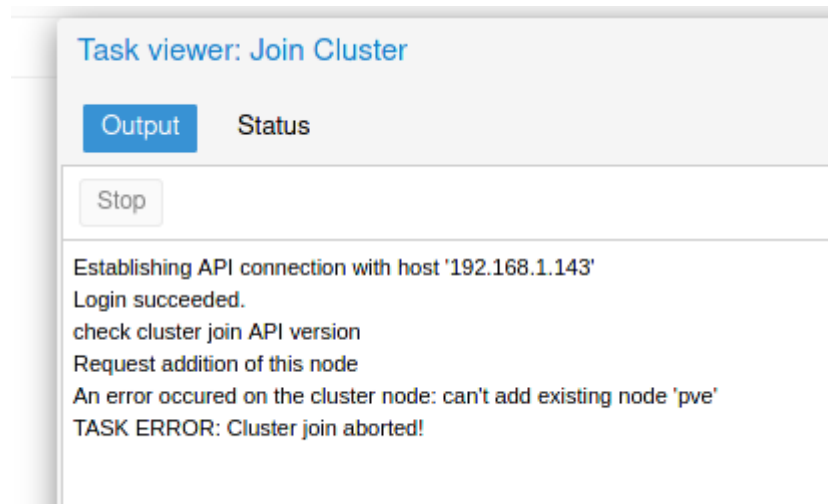
A screenshot of the 'Create Cluster' dialog box. It has a title bar with a close button. The form contains: 'Cluster Name:' with the value 'Main'; 'Cluster Network:' with a 'Link:' dropdown set to '0', an IP address field with '192.168.1.143', and a trash icon; an 'Add' button; and a note: 'Multiple links are used as failover, lower numbers have higher priority.' At the bottom, there is a 'Help' button with a question mark and a 'Create' button.

Amb les claus obtingudes al crear el cluster, unirem la resta de clusters.

A screenshot of the 'Cluster Join Information' dialog box. It has a title bar with a close button. The text says: 'Copy the Join Information here and use it on the node you want to add.' Below this are three fields: 'IP Address:' with '192.168.1.143'; 'Fingerprint:' with a long alphanumeric string; and 'Join Information:' with a very long alphanumeric string. At the bottom, there is a 'Copy Information' button.



Ens ha saltat aquest error



S'ha arreglat canviant el nom de la màquina (s'ha actualitzat la documentació per avisar de la importàcia de que les màquines tinguin un nom diferent)

Una vegada hagim arreglat els noms de host (en cas de que ho hagim fet malament i ens hagi saltat un error) quan tornem a intentar unir la màquina al cluster, ens apareixerà el següent missatge conforme s'ha unit correctament.



Repetim el proces amb la tercera maquina.

Cluster Join

☒ Assisted join: Paste encoded cluster join information and enter password.

Information:

To1OTo2NTpBODowMSIsInBIZXJMaW5rcyl6eylwljoiMTkyLjE2OC4xLjE0MyJ9LCJyaW5nX2FkZHliOlsiMTkyLjE2OC4xLjE0MyJdLCJ0b3RlbSI6eyJpbmRlcmZhY2UiOnsiMCI6eyJsaW5rbnVtYmVyljoiMCI6eyJ9fSwiY2x1c3Rlcl9uYW1lIjoiTWFPbilsImNvbWZpZ192ZXJzaW9uIjoiMSIsInZlcnNpb24iOiIyIiwic2VjYXV0aCI6Im9uliwiaXBfdmVyc2lrbil6ImldwJQtNilsImxpbmRlcmV9kZSI6InBhc3NpdmUifX0=

Peer Address:

192.168.1.143

Password:

Fingerprint:

B9:F2:39:02:41:64:4E:B5:51:08:C7:28:33:DB:FC:92:77:82:04:1F:87:2B:3B:88:0C:76:91:4E:59:65:A8:01

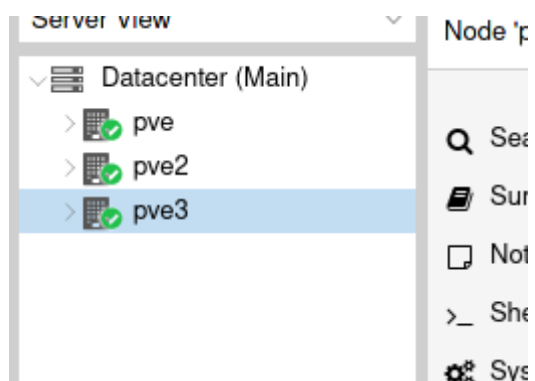
Cluster Network:

Link: 0 192.168.1.145 × ▾ peer's link address: 192.168.1.143

Help

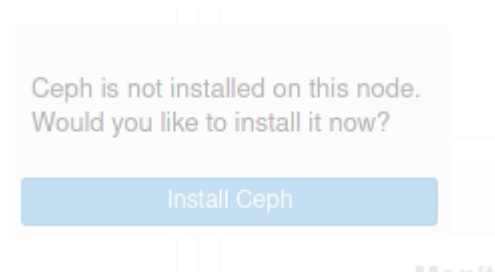
Join 'Main'

Una vegada hagim unit les 2 maquines a la maquina main, ens apareixeran aqui llistades

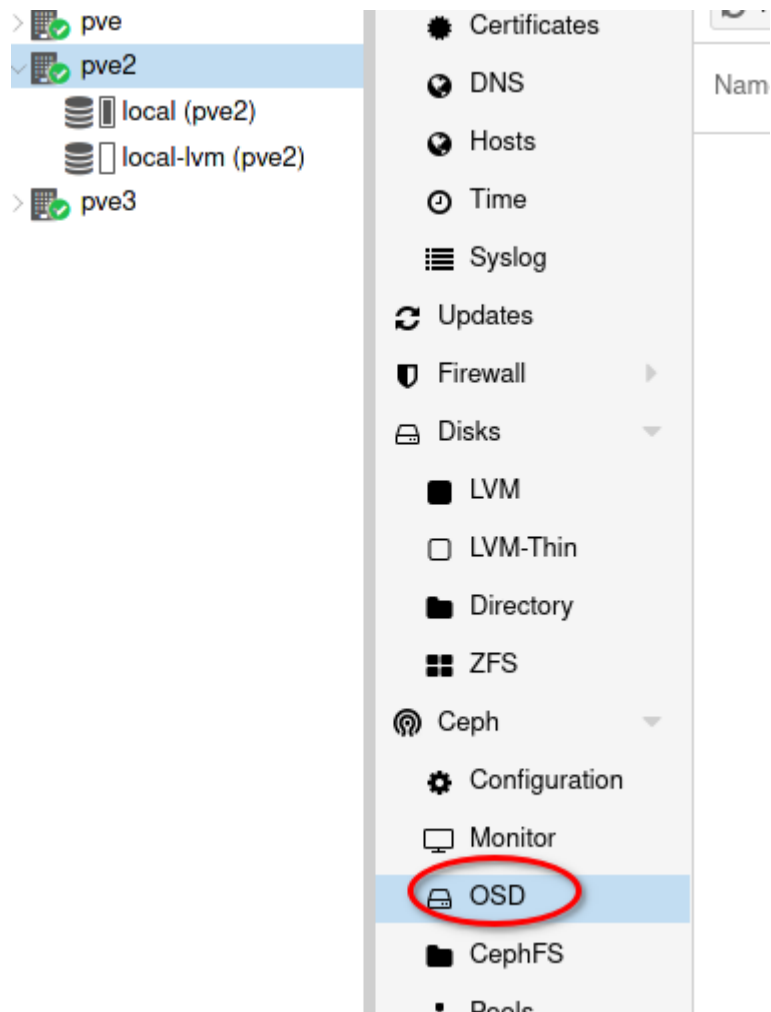


Instal·lació de Ceph en les màquines secundàries

Una vegada les màquines estiguin unides al cluster, podem instal·lar-les el CEPH com hem fet a la màquina main sense necessitat d'accedir a aquestes, per a això clicarem sobre d'elles, i ens apareixerà un missatge preguntant si volem instal·lar el CEPH.



Compartir discos amb el cluster



Utilitzarem els dos HDD amb els que compte cada maquina.

Create: Ceph OSD

Disk:

/dev/sdb

DB Disk:

use OSD disk

DB size (GiB):

Automatic

Encrypt OSD:

☐

WAL Disk:

use OSD/DB disk

Device Class:

auto detect

WAL size (GiB):

Automatic

Note: Ceph is not compatible with disks backed by a hardware RAID controller. For details see [the reference documentation](#).

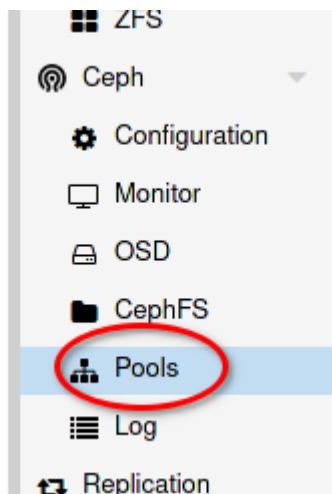
Help

Advanced☒

Create

Datacenter							
Search							
Summary	Type ↑	Description	Disk usage...	Memory us...	CPU usage	Uptime	Host CPU ..
Cluster	node	pve	22.1 %	33.1 %	0.0% of 1 ...	00:00:22	
Ceph	node	pve2	22.1 %	34.2 %	0.0% of 1 ...	00:00:22	
Options	node	pve3	22.1 %	34.3 %	0.0% of 1 ...	00:00:32	
Storage	storage	local (pve)	22.1 %			-	
Backup	storage	local-lvm (pve)	0.0 %			-	
Replication	storage	local (pve2)	22.1 %			-	
Permissions	storage	local-lvm (pve2)	0.0 %			-	
Users	storage	local (pve3)	22.1 %			-	
API Tokens	storage	local-lvm (pve3)	0.0 %			-	
Groups							
Pools							
Roles							

Creacio de CEPH POOLS



Create: Ceph Pool

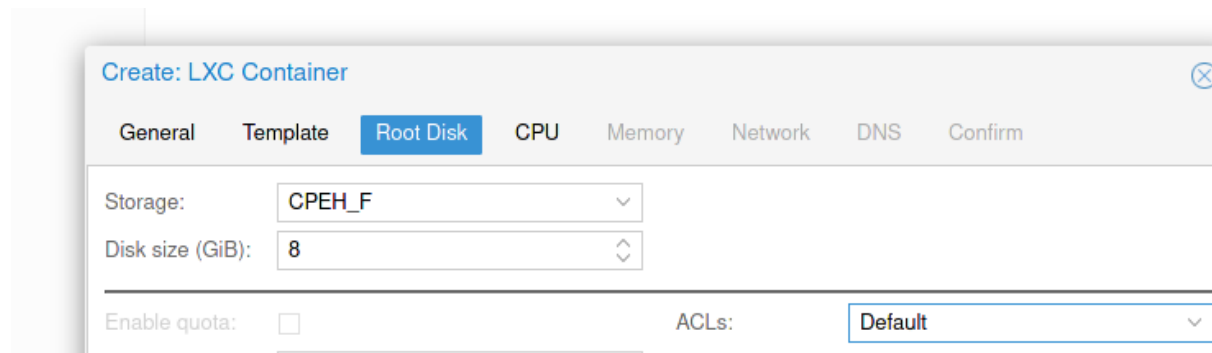
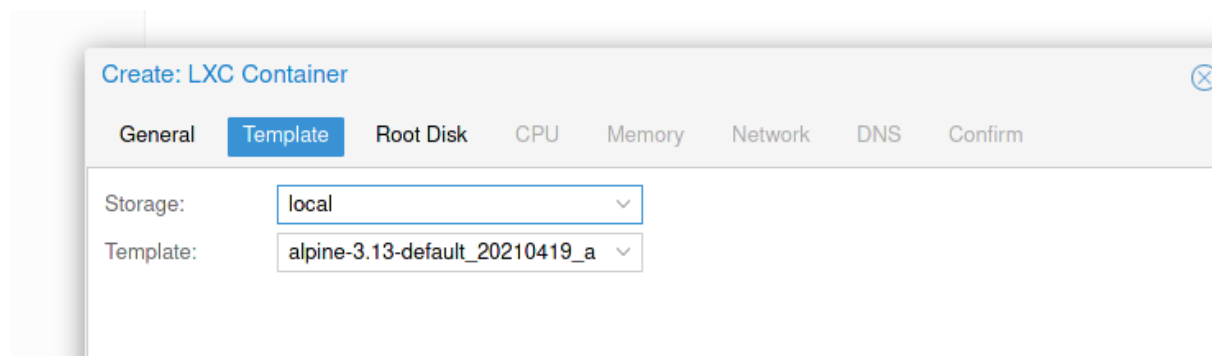
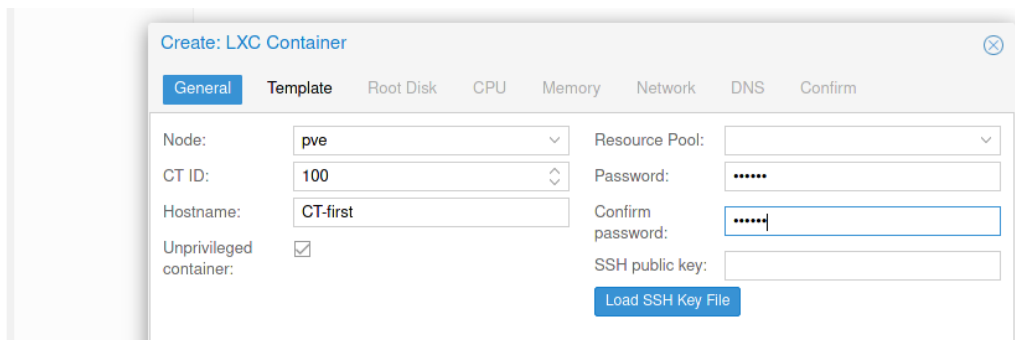
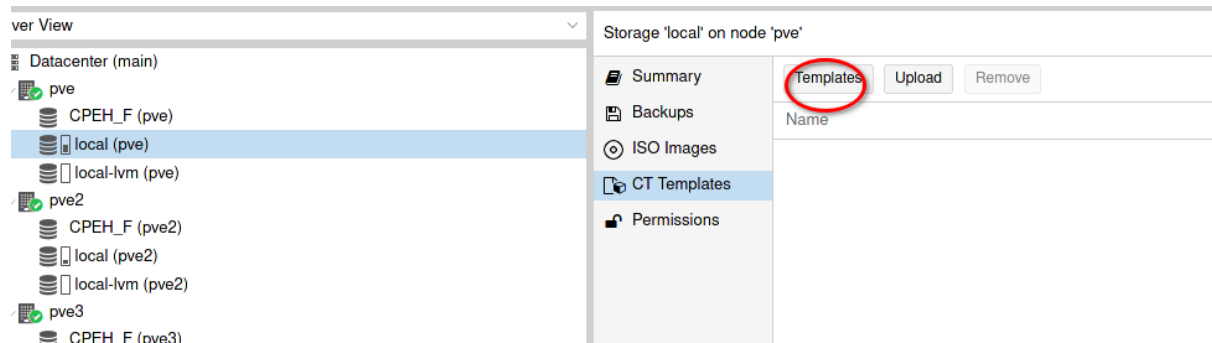
Name:	<input type="text" value="CPEH_F"/>	PG Autoscale Mode:	<input type="text" value="on"/>
Size:	<input type="text" value="3"/>	Add as Storage:	<input checked="" type="checkbox"/>
Min. Size:	<input type="text" value="2"/>	Target Ratio:	<input type="text" value="0.0"/>
Crush Rule:	<input type="text" value="replicated_rule"/>	Target Size:	<input type="text" value="0"/> GiB
# of PGs:	<input type="text" value="128"/>	Target Ratio takes precedence.	
		Min. # of PGs:	<input type="text" value="0"/>

☒ Advanced

Creacio de maquina virtual

CT

Comensarem descarregant una plantilla



Create: LXC Container ✕

General Template Root Disk CPU Memory Network DNS Confirm

Cores: 1

CPU limit: unlimited CPU units: 512

Create: LXC Container ✕

General Template Root Disk CPU Memory Network DNS Confirm

Memory (MiB): 512

Swap (MiB): 512

Create: LXC Container ✕

General Template Root Disk CPU Memory Network DNS Confirm

Name: eth0

MAC address: auto

Bridge: vmb0

VLAN Tag: no VLAN

Rate limit (MB/s): unlimited

Firewall: ☒

IPv4: ☒ Static ☐ DHCP

IPv4/CIDR: None

Gateway (IPv4):

IPv6: ☒ Static ☐ DHCP ☐ SLAAC

IPv6/CIDR: None

Gateway (IPv6):

VM

Primer pujarem una ISO

Upload

Content:

ISO image

C:\fakepath\ubuntu-20.04.2.0-d

Select File...

Abort

Upload

Create: Virtual Machine

General

OS

System

Hard Disk

CPU

Memory

Network

Confirm

Node:

pve

VM ID:

100

Name:

Firstvm

Resource Pool:

Start at boot:

☐

Start/Shutdown order:

any

Startup delay:

default

Shutdown timeout:

default

Create: Virtual Machine

General

OS

System

Hard Disk

CPU

Memory

Network

Confirm

☒ Use CD/DVD disc image file (iso)

Storage:

local

ISO image:

ubuntu-20.04.2.0-desktop-amd

☐ Use physical CD/DVD Drive

☐ Do not use any media

Guest OS:

Type:

Linux

Version:

5.x - 2.6 Kernel

Create: LXC Container



General

Template

Root Disk

CPU

Memory

Network

DNS

Confirm

Key ↑	Value
cores	1
cpuunits	512
hostname	CT-first
memory	512
net0	bridge=vbr0,name=eth0,firewall=1
nodename	pve
ostemplate	local:vztmp/alpine-3.13-default_20210419_amd64.tar.xz
pool	
rootfs	CPEH_F:8
swap	512
unprivileged	1
vmid	100

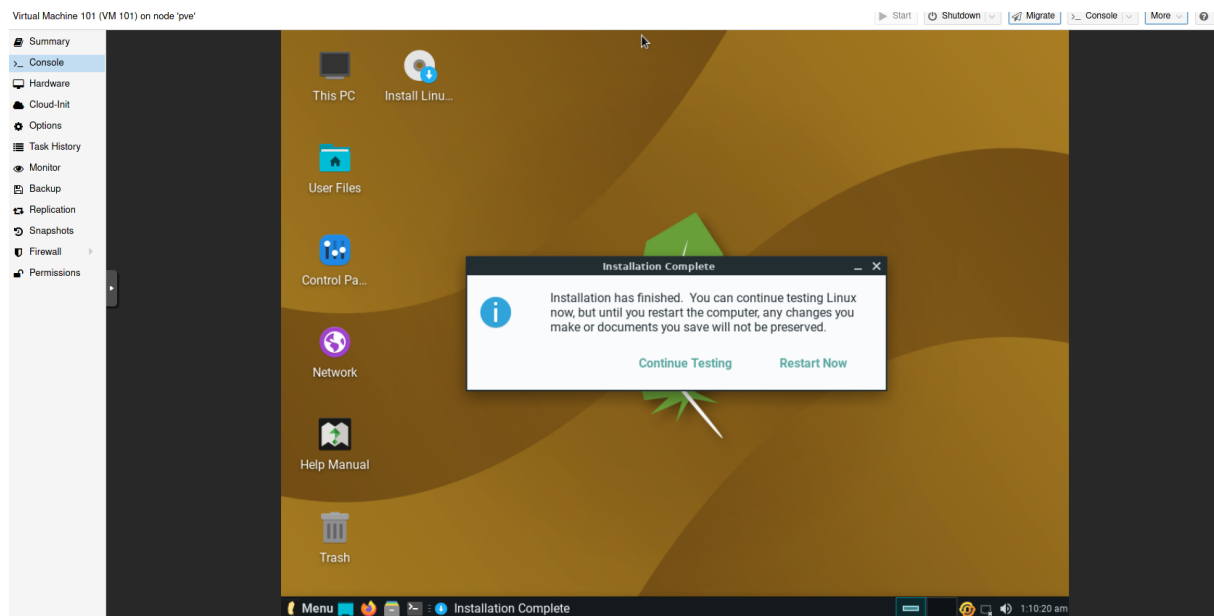
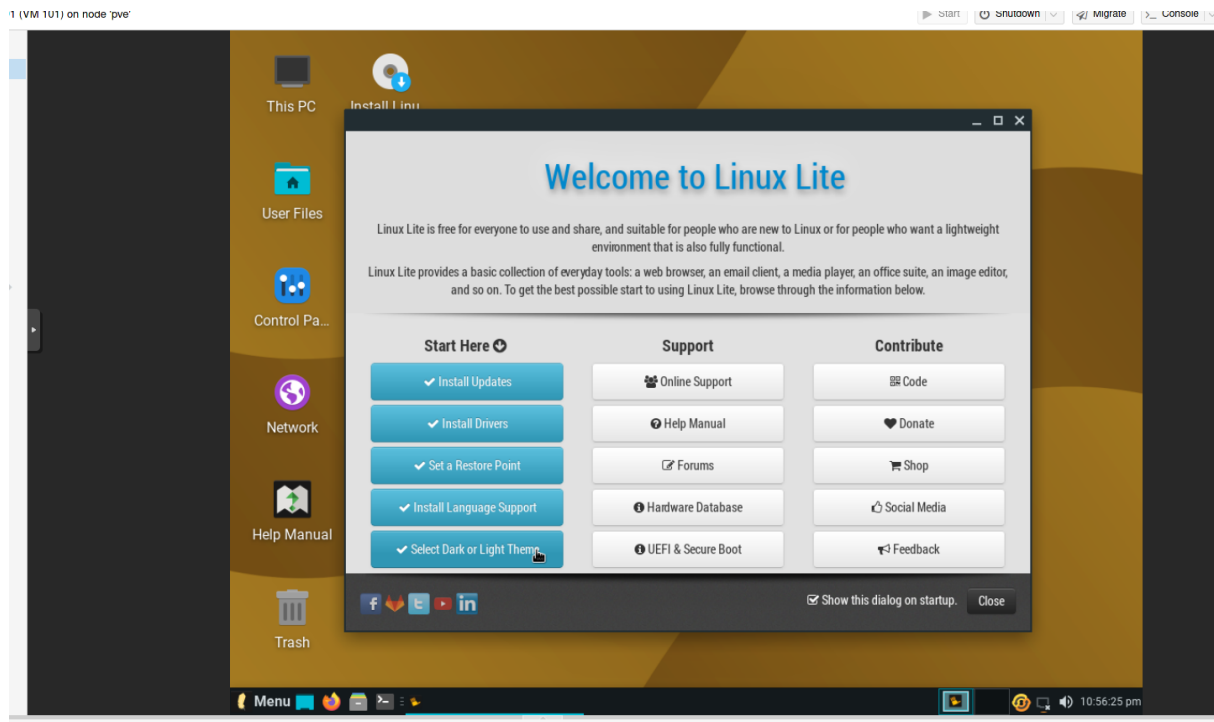
☐ Start after created

Advanced ☒

Back

Finish

Una vegada hagim iniciat la maquina, si accedit al “shell” sens obrira una instancia de noVNC i podrem procedir amb l'instalacio de l'iso.



Permetre acces a internet per les maquines virtuals

Configuracio de la maquina servidor

Hem afegit la següent línia al fitxer **/etc/network/interfaces**, i hem reiniciat el servei, això ha creat un dispositiu de xarxa virtual que farà redirect + Postrouting al port `enp0s3`, que és el que utilitzem amb accés directe a la xarxa real.

Això s'ha de aplicar als 3 servidors, de forma que si migrem les màquines aquestes segueixin tenint els mateixos accessos.

...

```
auto vmbr1
iface vmbr1 inet static
    address 10.10.6.1/24
    bridge-ports none
    bridge-stp off
    bridge-fd 0
    post-up      systemctl -w net.ipv4.ip_forward=1
    post-up      iptables -t nat -A POSTROUTING -s '10.10.6.0/24' -o vmbr0 -j MASQUERADE
    post-down    iptables -t nat -D POSTROUTING -s '10.10.6.0/24' -o vmbr0 -j MASQUERADE
```

...

finalment fem servir

service networking restart

per a aplicar els canvis en el fitxer.

Configuracio de les maquines virtuals

Hem assignat una IP estàtica i el seu gateway a la màquina client, a més de seleccionar l'interfície que hem creat.

Edit: Network Device (veth)

Name:	<input type="text" value="veth0"/>	IPv4:	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
MAC address:	<input type="text" value="62:55:CF:9B:DE:FF"/>	IPv4/CIDR:	<input type="text" value="10.10.6.2/16"/>
Bridge:	<input type="text" value="vmbr1"/>	Gateway (IPv4):	<input type="text" value="10.10.6.1"/>
VLAN Tag:	<input type="text" value="no VLAN"/>	IPv6:	<input checked="" type="radio"/> Static <input type="radio"/> DHCP <input type="radio"/> SLAAC
Rate limit (MB/s):	<input type="text" value="unlimited"/>	IPv6/CIDR:	<input type="text" value="None"/>
Firewall:	<input checked="" type="checkbox"/>	Gateway (IPv6):	<input type="text"/>

Ara mateix la màquina ja compta amb accés a internet.

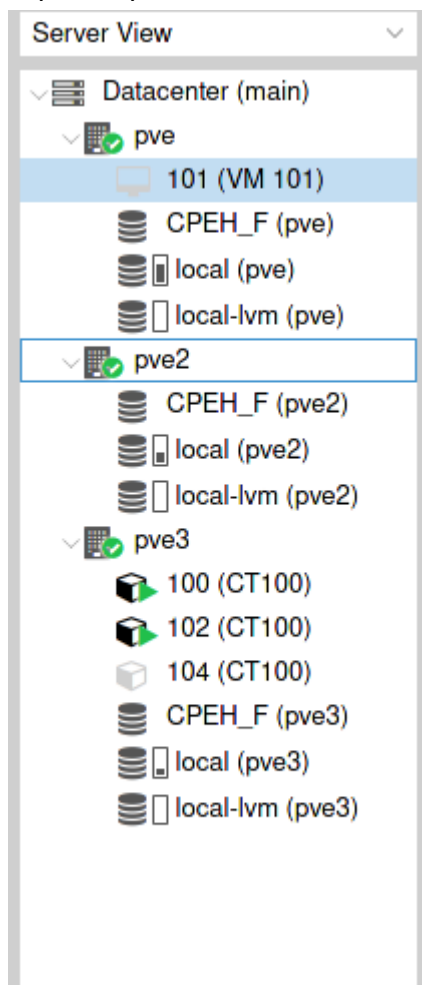
CT100) on node 'pve3'

```
root@CT100:~# ping google.es
PING google.es (216.58.215.163) 56(84) bytes of data.
64 bytes from mad41s07-in-f3.1e100.net (216.58.215.163): icmp_seq=1 ttl=115 time=37.1 ms
64 bytes from mad41s07-in-f3.1e100.net (216.58.215.163): icmp_seq=2 ttl=115 time=11.8 ms
```

Comprovacio del funcionament

Per a comprovar que el cluster esta configurat correctament, hem de enjegar una maquina virtual, i apagar el serviro que la hosteja, si esta ben configurat, aquesta maquina sera migrada a un altre servidor.

El primer pas sera iniciar 1 o 2 maquines



Comprovacio de xarxa

Maquina a)

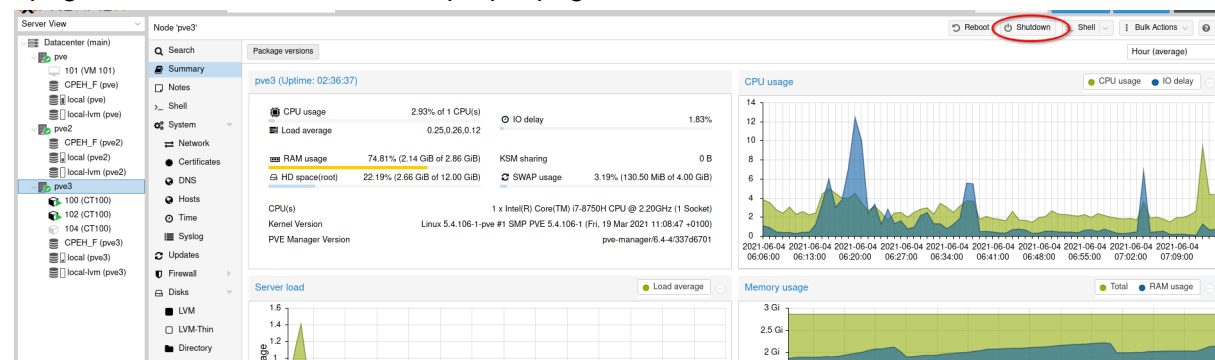
```
root@CT100:~# ping google.com
PING google.com (142.250.201.78) 56(84) bytes of data.
64 bytes from mad07s25-in-f14.1e100.net (142.250.201.78): icmp_seq=1 ttl=115 time=13.1 ms
64 bytes from mad07s25-in-f14.1e100.net (142.250.201.78): icmp_seq=2 ttl=115 time=13.1 ms
^C
--- google.com ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 13.088/13.097/13.106/0.009 ms
root@CT100:~#
```

Maquina b)

```
Support: https://abandoned.com/advantage
Last login: Fri Jun  4 03:22:54 UTC 2021 on tty1
root@CT100:~# maquina^C
root@CT100:~# ping oracle.com
PING oracle.com (137.254.120.50) 56(84) bytes of data.
64 bytes from vp-ocoma-cms-adc.oracle.com (137.254.120.50): icmp_seq=1 ttl=239 time=140 ms
64 bytes from vp-ocoma-cms-adc.oracle.com (137.254.120.50): icmp_seq=2 ttl=239 time=140 ms
64 bytes from vp-ocoma-cms-adc.oracle.com (137.254.120.50): icmp_seq=3 ttl=239 time=140 ms
64 bytes from vp-ocoma-cms-adc.oracle.com (137.254.120.50): icmp_seq=4 ttl=239 time=139 ms
^C
--- oracle.com ping statistics ---
```

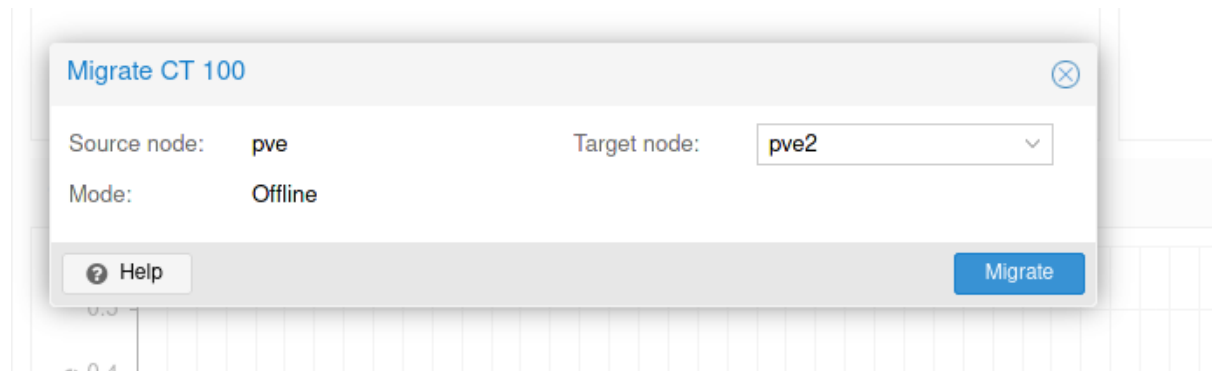
Comprovacio de migracio

Apagarem el node desde la seva propia pagina.



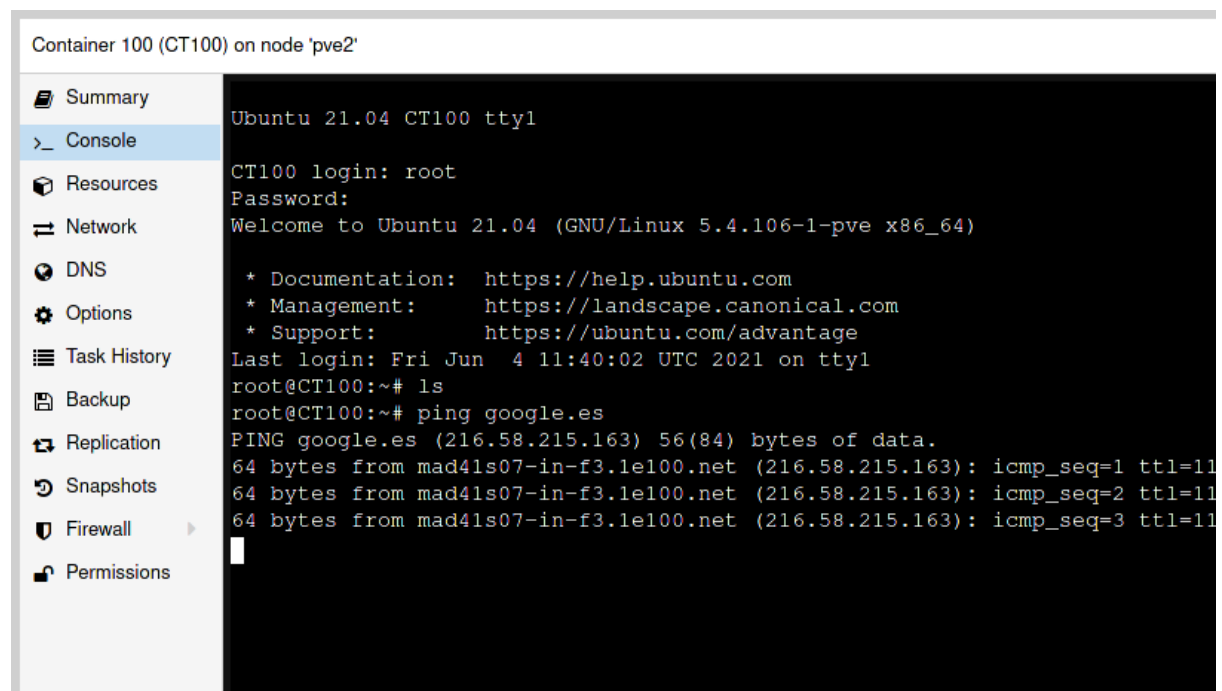
Comprovacio de migracio

Migrarem un CT del node 1 al node 2



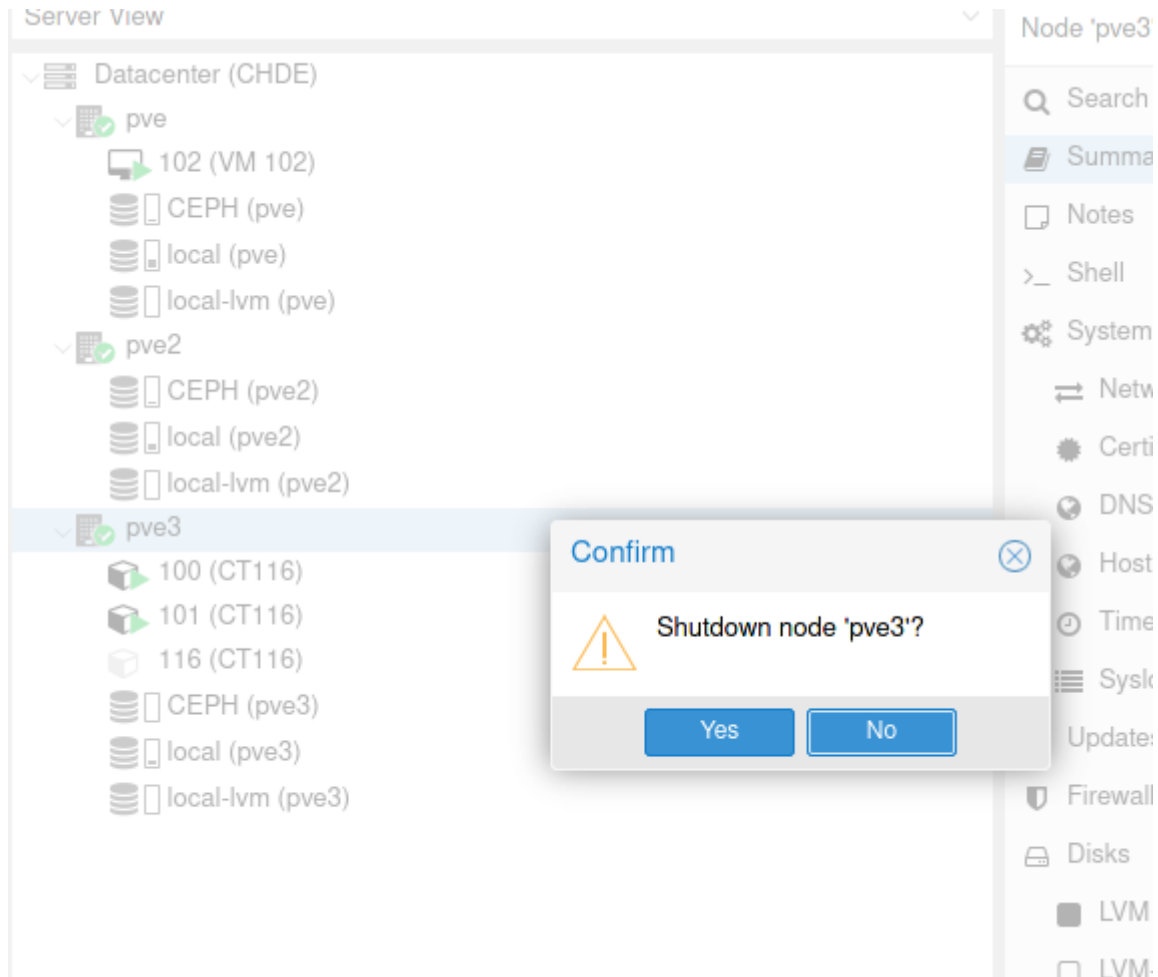
Comprovacio de xarxa en migració

Com hem aplicat els canvis a la xarxa en els tres nodes, seguirem tenint access a internet.



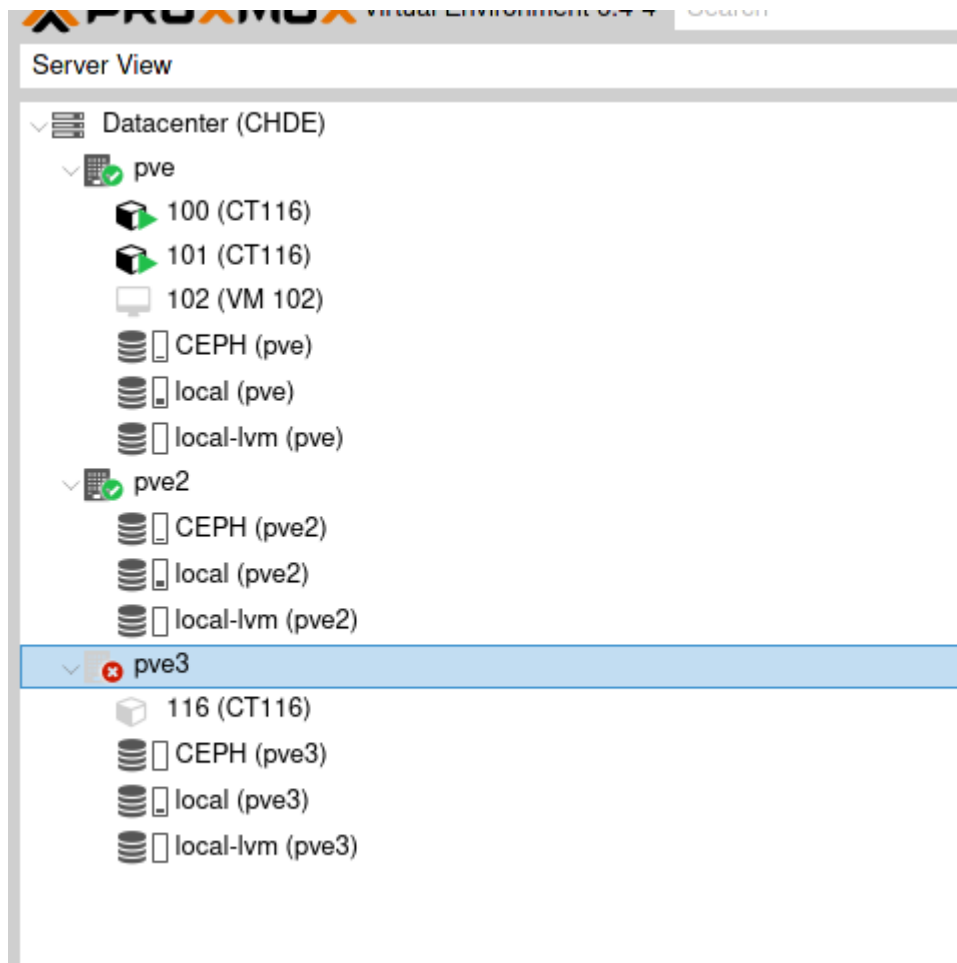
Comprovacio de High Availability

Apagem el node que estigui hostejant maquines



Esperem uns 20-30 segons...

Ara podem veure com el node 3 esta apagat, i tenim les els contenidors a la primera maquina.



En cas de tornar a engegar el node 3, aquests contenidors seran enviats de tornada.

Firefox prevented this site from opening a pop-up window.

PROXMOX Virtual Environment 6.4-4

Server View

- ▼ Datacenter (CHDE)
 - ▼ pve
 - 102 (VM 102)
 - CEPH (pve)
 - local (pve)
 - local-lvm (pve)
 - ▼ pve2
 - CEPH (pve2)
 - local (pve2)
 - local-lvm (pve2)
 - ▼ pve3
 - 100 (CT116)
 - 101 (CT116)
 - 116 (CT116)
 - CEPH (pve3)
 - local (pve3)
 - local-lvm (pve3)

Errors

Ghost monitor

Monitor

▶ Start

■ Stop

↺ Restart

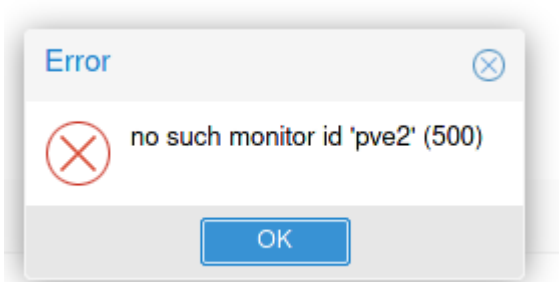
Create

Destroy

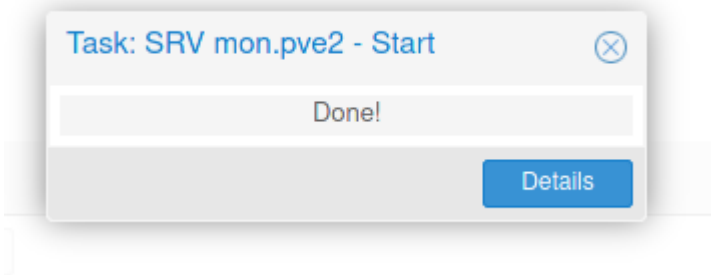
Syslog

Name ↑	Host	Status	Address
mon.pve	pve	running	192.168.1.143:6789/0
mon.pve2	pve2	stopped	Unknown
mon.pve3	pve3	running	192.168.1.145:6789/0

No el podem eliminar via GUI



I en iniciar ens retorna “Done”, tot i que no s’inicia



A mes, si executem **systemctl status ceph-mon@pve2.service** ens surt que esta funcionant correctament.

```
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@pve2:~# systemctl status ceph-mon@pve2.service
● ceph-mon@pve2.service - Ceph cluster monitor daemon
   Loaded: loaded (/lib/systemd/system/ceph-mon@.service; enabled; vendor preset: enabled)
   Drop-In: /usr/lib/systemd/system/ceph-mon@.service.d
            └─ceph-after-pve-cluster.conf
   Active: active (running) since Fri 2021-06-04 15:29:48 CEST; 6min ago
 Main PID: 973 (ceph-mon)
    Tasks: 26
   Memory: 30.4M
   CGroup: /system.slice/system-ceph\x2dmon.slice/ceph-mon@pve2.service
           └─973 /usr/bin/ceph-mon -f --cluster ceph --id pve2 --setuser ceph --setgroup ceph


Jun 04 15:29:48 pve2 systemd[1]: Started Ceph cluster monitor daemon.
root@pve2:~# systemctl status ceph-mon@pve2.service
```

SOLUCIO

Desde la maquina que esta donant problemes:

```
rm /etc/systemd/system/ceph-mon.target.wants/ceph-mon@pve2.service
rm -rf /var/lib/ceph/mon/ceph-pve2
```

Reiniciem tots els nodes per a forsar el refresc de informacio.

<div>▶ Start</div> <div>■ Stop</div> <div>↺ Restart</div> <div>Create</div> <div>Destroy</div> <div>Syslog</div> <div></div>			
Name ↑	Host	Status	Address
mon.pve	pve	running	192.168.1.143:6789/0
mon.pve3	pve3	running	192.168.1.145:6789/0

Ara ja podem crear un monitor

Monitor			
<div><div>▶ Start</div><div>■ Stop</div><div>↺ Restart</div><div>Create</div><div>Destroy</div><div>Syslog</div></div>			
Name ↑	Host	Status	Ac
mon.pve	pve	running	19
mon.pve2	pve2	running	19
mon.pve3	pve3	running	19

No auto migration/HA

Revisar que:

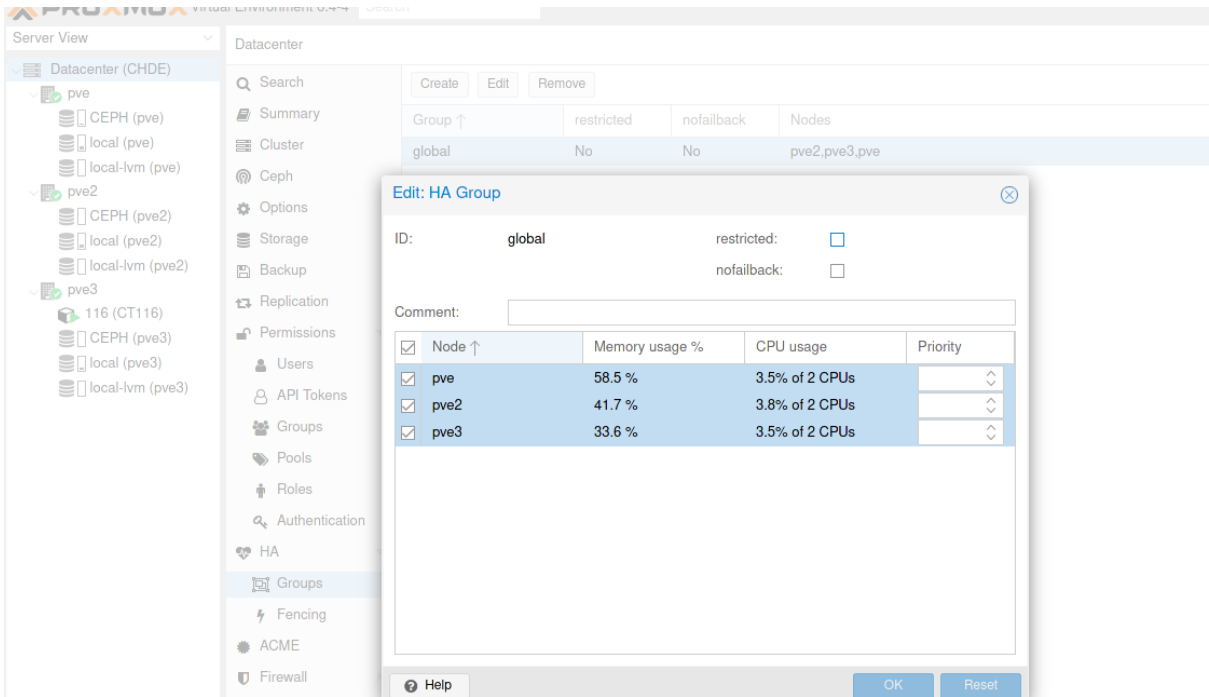
Desde el summari de la maquina, hem de revisar el “**HA**” state.

CT116	
Status	stopped
HA State	<u>none</u>
Node	
CPU usage	0.00% of 1 CPU(s)
Memory usage	0.00% (0 B of 512.00 MiB)
SWAP usage	0.00% (0 B of 512.00 MiB)
Bootdisk size	8.00 GiB

En cas de estar en none, hem de configurar HA manualment

Crear un HA Group

Hem creat un grup de tots els nodes, tots tenint la mateixa prioritat.



Afegim un recurs utilitzant l'id del container i el grup que hem creat.

Server View

Datacenter

Search

Summary

Cluster

Ceph

Options

Storage

Backup

Replication

Permissions

Users

API Tokens

Groups

Pools

Roles

Authentication

HA

Groups

Fencing

ACME

Firewall

Metric Server

Support

Status

Type	Status
quorum	OK
master	pve3 (active, Fri Jun 4 16:45:41 2021)
lrm	pve (idle, Fri Jun 4 16:45:42 2021)
lrm	pve2 (idle, Fri Jun 4 16:45:43 2021)
lrm	pve3 (active, Fri Jun 4 16:45:43 2021)

Resources

Add Edit Remove

ID	State	Node	Name	Max. Restart	Max. Reloc...	Group
----	-------	------	------	--------------	---------------	-------

Add: Resource: Container/Virtual Machine

VM: 116 Group: global

Max. Restart: 1 Request State: started

Max. Relocate: 1

Comment:

Help Add

Ara si tornem a revisar la maquina, ja ens surt com que esta administrada per HA.

Container 116 (CT116) on node 'pve3'

Summary

Console

Resources

Network

DNS

Options

Task History

Backup

Replication

Snapshots

Firewall

CT116 (Uptime: 00:03:55)

Status running

HA State started, Group: global

Node pve3

CPU usage 0.00% of 1 CPU(s)

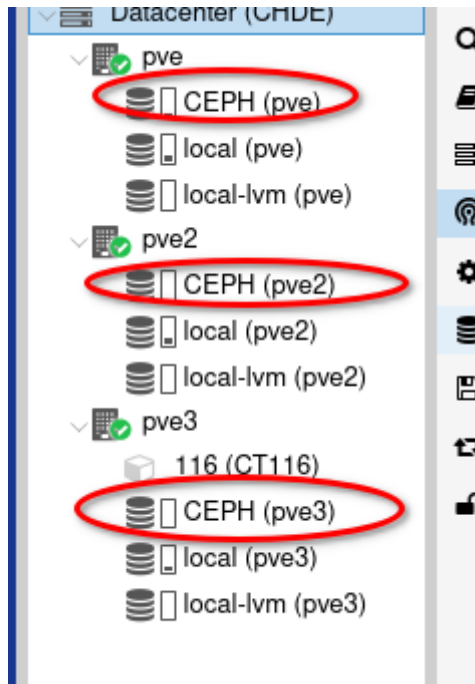
Memory usage 7.19% (36.82 MiB of 512.00 MiB)

SWAP usage 0.00% (0 B of 512.00 MiB)

Bootdisk size 8.78% (702.63 MiB of 7.81 GiB)

Altres configuracions a tindre en compte

Tenim el CEPH Creat



Tenim els CEPH monitors activats

Monitor			
<div>▶ Start</div> <div>■ Stop</div> <div>↺ Restart</div> <div>Create</div> <div>Destroy</div> <div>Syslog</div>			
Name ↑	Host	Status	Address
mon.pve	pve	running	192.168.1.143:6789/0
mon.pve2	pve2	running	192.168.1.144:6789/0
mon.pve3	pve3	running	192.168.1.145:6789/0

Tenim els CEPH managers creats i almenys un activat.

Manager			
<div> ▶ Start ▶ Stop ▶ Restart ▶ Create ▶ Destroy ▶ Syslog </div>			
Name ↑	Host	Status	Address
mgr.pve	pve	active	192.168.1.143
mgr.pve2	pve2	standby	192.168.1.144
mgr.pve3	pve3	standby	192.168.1.145

Tenim els discos OSD del CEPH visibles

<div> ▶ Reload ▶ Create: OSD ▶ Manage Global Flags </div>		No OSD selected								
Name	Class	OSD Type	Status	Version	weight	reweight	Used (%)	Total	Apply/Commit Latency (ms)	
▼ default										
▼ pve3				15.2.11						
osd.4	hdd	bluestore	up / in	15.2.11	0.01949	1.00	6.60	20.00 GiB	2 / 2	
osd.3	hdd	bluestore	up / in	15.2.11	0.01949	1.00	7.63	20.00 GiB	8 / 8	
▼ pve2				15.2.11						
osd.1	hdd	bluestore	up / in	15.2.11	0.01949	1.00	6.68	20.00 GiB	6 / 6	
osd.0	hdd	bluestore	up / in	15.2.11	0.01949	1.00	7.55	20.00 GiB	3 / 3	
▼ pve				15.2.11						
osd.5	hdd	bluestore	up / in	15.2.11	0.01949	1.00	6.71	20.00 GiB	2 / 2	
osd.2	hdd	bluestore	up / in	15.2.11	0.01949	1.00	7.52	20.00 GiB	2 / 2	

Utilitzem el CEPH com a emmagatzematge per a les maquines virtualitzades/containers.

Create: LXC Container

General

Template

Root Disk

CPU

Memory

Network

Storage:

CEPH

Disk size (GiB):

8

Enable quota:

☐

ACLs:

La politica de HIGH AVAILABILITY del datacenter.

Server View

Datacenter (CHDE)

pve

CEPH (pve)

local (pve)

local-lvm (pve)

pve2

CEPH (pve2)

local (pve2)

local-lvm (pve2)

pve3

116 (CT116)

CEPH (pve3)

local (pve3)

local-lvm (pve3)

Datacenter

Search

Summary

Cluster

Ceph

Options

Storage

Backup

Replication

Permissions

Users

API Tokens

Groups

Pools

Roles

Authentication

HA

Edit

Keyboard Layout	English (UK) (en-gb)
HTTP proxy	none
Console Viewer	Default (xterm.js)
Email from address	root@\$hostname
MAC address prefix	none
Migration Settings	Default
HA Settings	Default
U2F Settings	Default
Bandwidth Limits	None
Maximal Workers/bulk-action	4

Edit: HA Settings

Shutdown Policy: migrate

Help

OK

Reset