



Installation Process

Open your virtual datacenter

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Agenda

- About
- Demo environment
- What is NESTED KVM ?
- Using virt-manager for your environment
- Create first installation using Fedora Node
- Create second installation using oVirt Node

About

- Install process the oVirt with Fedora Node
- Install process the oVirt with oVirt Node

Demo environment

- One hardware
- Architecture:
 - Fedora 20 (NESTED KVM)
 - Fedora 19 (oVirt Engine)
 - Fedora 19 Node (Host)
 - oVirt Node (Host)

What is NESTED KVM ?

- NESTED support “vmx” on INTEL or “svm” on AMD

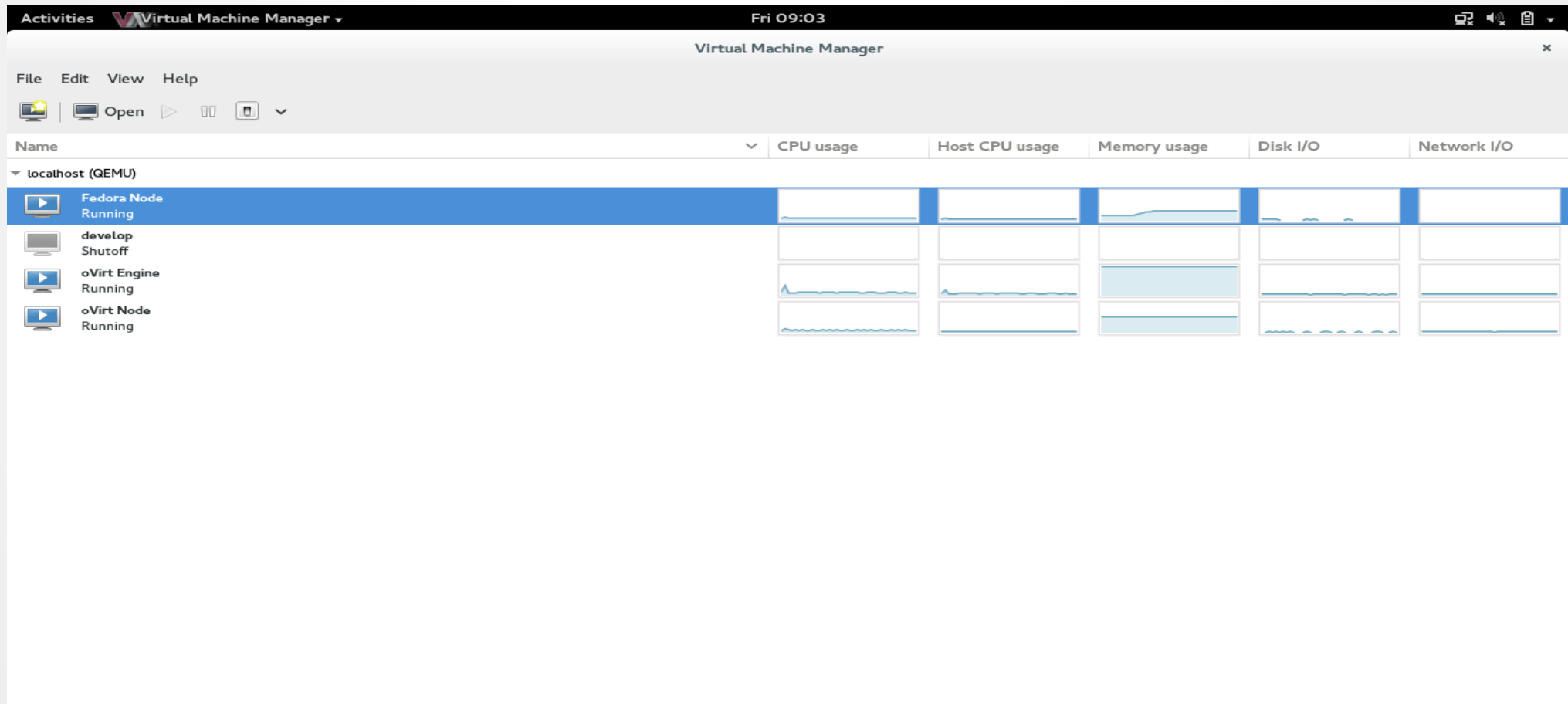
```
[root@firelap ~]# grep -ml vmx /proc/cpuinfo
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm p
be syscall nx rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc aperfmperf eagerfpu pni pclmulqdq dtes64
monitor ds_cpl vmx est tm2 ssse3 cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm
ida arat epb xsaveopt pln pts dtherm tpr_shadow vnmi flexpriority ept vpid fsgsbase smep erms
[root@firelap ~]# cat /etc/default/grub
GRUB_TIMEOUT=5
GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)"
GRUB_DEFAULT=saved
GRUB_DISABLE_SUBMENU=true
GRUB_TERMINAL_OUTPUT="console"
GRUB_CMDLINE_LINUX="rd.lvm.lv=fedora_firelap/root vconsole.font=latarcyrheb-sun16 rd.lvm.lv=fedora_firelap/swap $([ -x /usr/sbin/rhcras
hkernel-param ] && /usr/sbin/rhcrashkernel-param || :) rhgb quiet kvm-intel.nested=1"
GRUB_DISABLE_RECOVERY="true"
[root@firelap ~]# grub2-mkconfig -o /boot/grub2/grub.cfg
Generating grub.cfg ...
Found linux image: /boot/vmlinuz-3.14.2-200.fc20.x86_64
Found initrd image: /boot/initramfs-3.14.2-200.fc20.x86_64.img
Found linux image: /boot/vmlinuz-3.13.10-200.fc20.x86_64
Found initrd image: /boot/initramfs-3.13.10-200.fc20.x86_64.img
Found linux image: /boot/vmlinuz-3.13.9-200.fc20.x86_64
Found initrd image: /boot/initramfs-3.13.9-200.fc20.x86_64.img
Found linux image: /boot/vmlinuz-0-rescue-55dc937ba52c4c6f9c263e25f8038b1d
Found initrd image: /boot/initramfs-0-rescue-55dc937ba52c4c6f9c263e25f8038b1d.img
done
[root@firelap ~]#
```

Reference:

http://www.ovirt.org/Vdsm_Developers#Running_Node_as_guest_-_Nested_KVM

Using virt-manager for your environment

- Install qemu-kvm/libvirt/virt-manager



Using virt-manager for your environment

- Install Fedora 19 for oVirt Engine

- Install repo oVirt in Fedora 19:

```
# yum localinstall -y http://resources.ovirt.org/releases/ovirt-release.noarch.rpm
```

- Clone oVirt Engine(vm) for Fedora Node

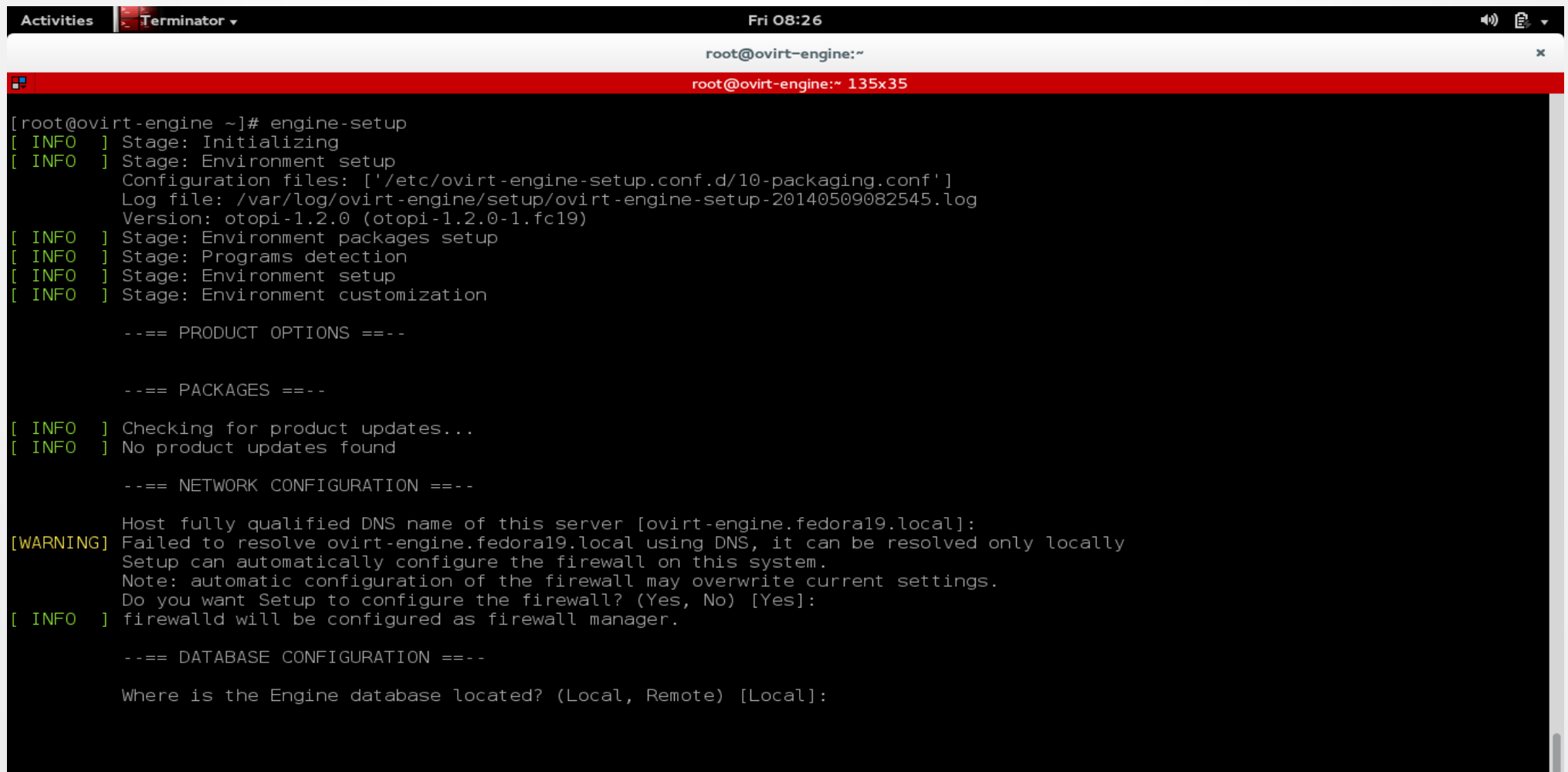
- Install oVirt Engine:

```
# yum install -y ovirt-engine
```

Using virt-manager for your environment

- Set oVirt Engine

engine-setup



```
[root@ovirt-engine ~]# engine-setup
[ INFO ] Stage: Initializing
[ INFO ] Stage: Environment setup
Configuration files: ['/etc/ovirt-engine-setup.conf.d/10-packaging.conf']
Log file: /var/log/ovirt-engine/setup/ovirt-engine-setup-20140509082545.log
Version: otopi-1.2.0 (otopi-1.2.0-1.fc19)
[ INFO ] Stage: Environment packages setup
[ INFO ] Stage: Programs detection
[ INFO ] Stage: Environment setup
[ INFO ] Stage: Environment customization

--== PRODUCT OPTIONS ==--

--== PACKAGES ==--

[ INFO ] Checking for product updates...
[ INFO ] No product updates found

--== NETWORK CONFIGURATION ==--

Host fully qualified DNS name of this server [ovirt-engine.fedora19.local]:
[WARNING] Failed to resolve ovirt-engine.fedora19.local using DNS, it can be resolved only locally
Setup can automatically configure the firewall on this system.
Note: automatic configuration of the firewall may overwrite current settings.
Do you want Setup to configure the firewall? (Yes, No) [Yes]:
[ INFO ] firewalld will be configured as firewall manager.

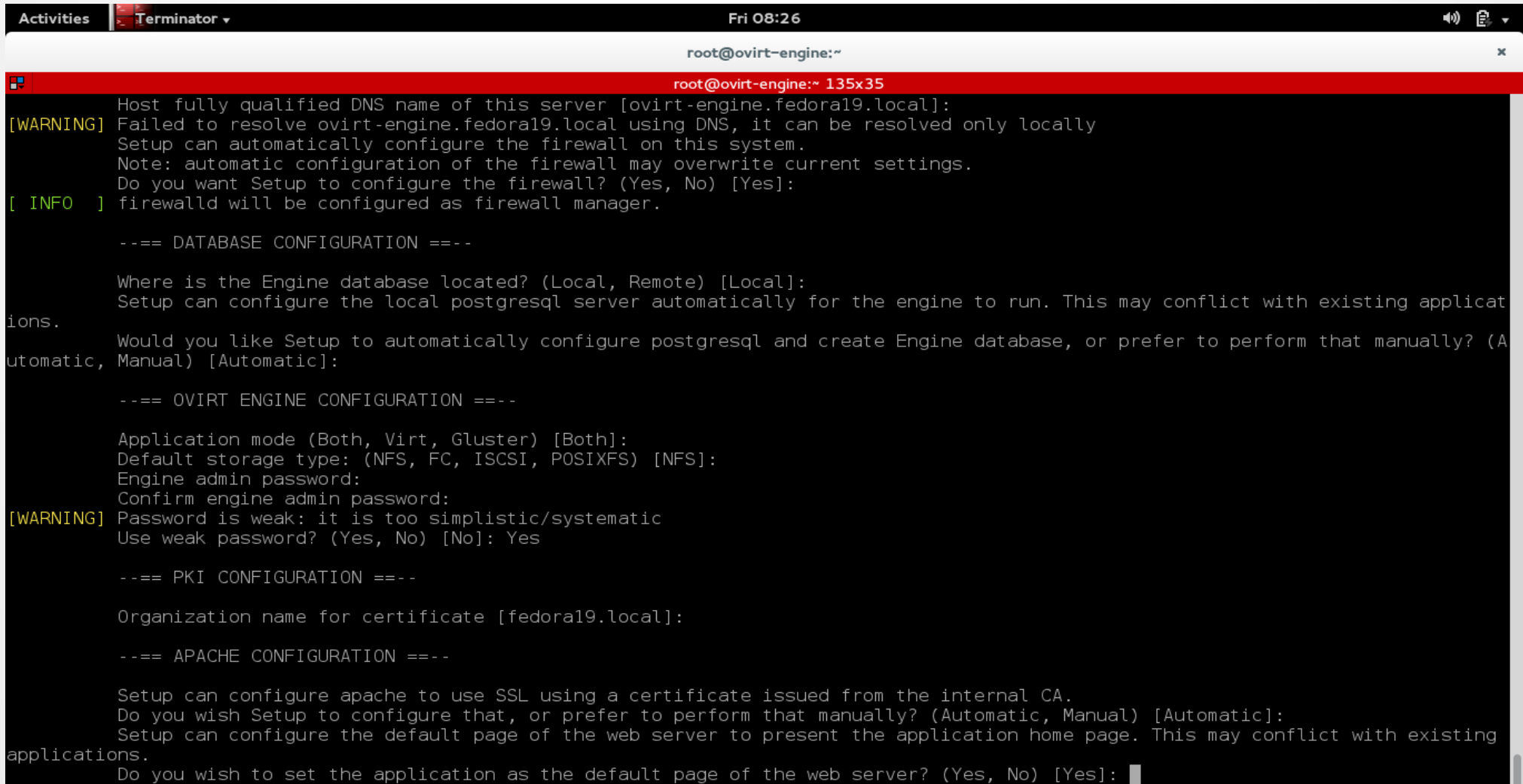
--== DATABASE CONFIGURATION ==--

Where is the Engine database located? (Local, Remote) [Local]:
```


Using virt-manager for your environment

- Set oVirt Engine

engine-setup



```
Activities Terminator v Fri 08:26
root@ovirt-engine:~
root@ovirt-engine:~ 135x35
[WARNING] Host fully qualified DNS name of this server [ovirt-engine.fedora19.local]:
Failed to resolve ovirt-engine.fedora19.local using DNS, it can be resolved only locally
Setup can automatically configure the firewall on this system.
Note: automatic configuration of the firewall may overwrite current settings.
Do you want Setup to configure the firewall? (Yes, No) [Yes]:
[ INFO ] firewallld will be configured as firewall manager.

--== DATABASE CONFIGURATION ==--

Where is the Engine database located? (Local, Remote) [Local]:
Setup can configure the local postgresql server automatically for the engine to run. This may conflict with existing applications.
Would you like Setup to automatically configure postgresql and create Engine database, or prefer to perform that manually? (Automatic, Manual) [Automatic]:

--== OVIRT ENGINE CONFIGURATION ==--

Application mode (Both, Virt, Gluster) [Both]:
Default storage type: (NFS, FC, ISCSI, POSIXFS) [NFS]:
Engine admin password:
Confirm engine admin password:
[WARNING] Password is weak: it is too simplistic/systematic
Use weak password? (Yes, No) [No]: Yes

--== PKI CONFIGURATION ==--

Organization name for certificate [fedora19.local]:

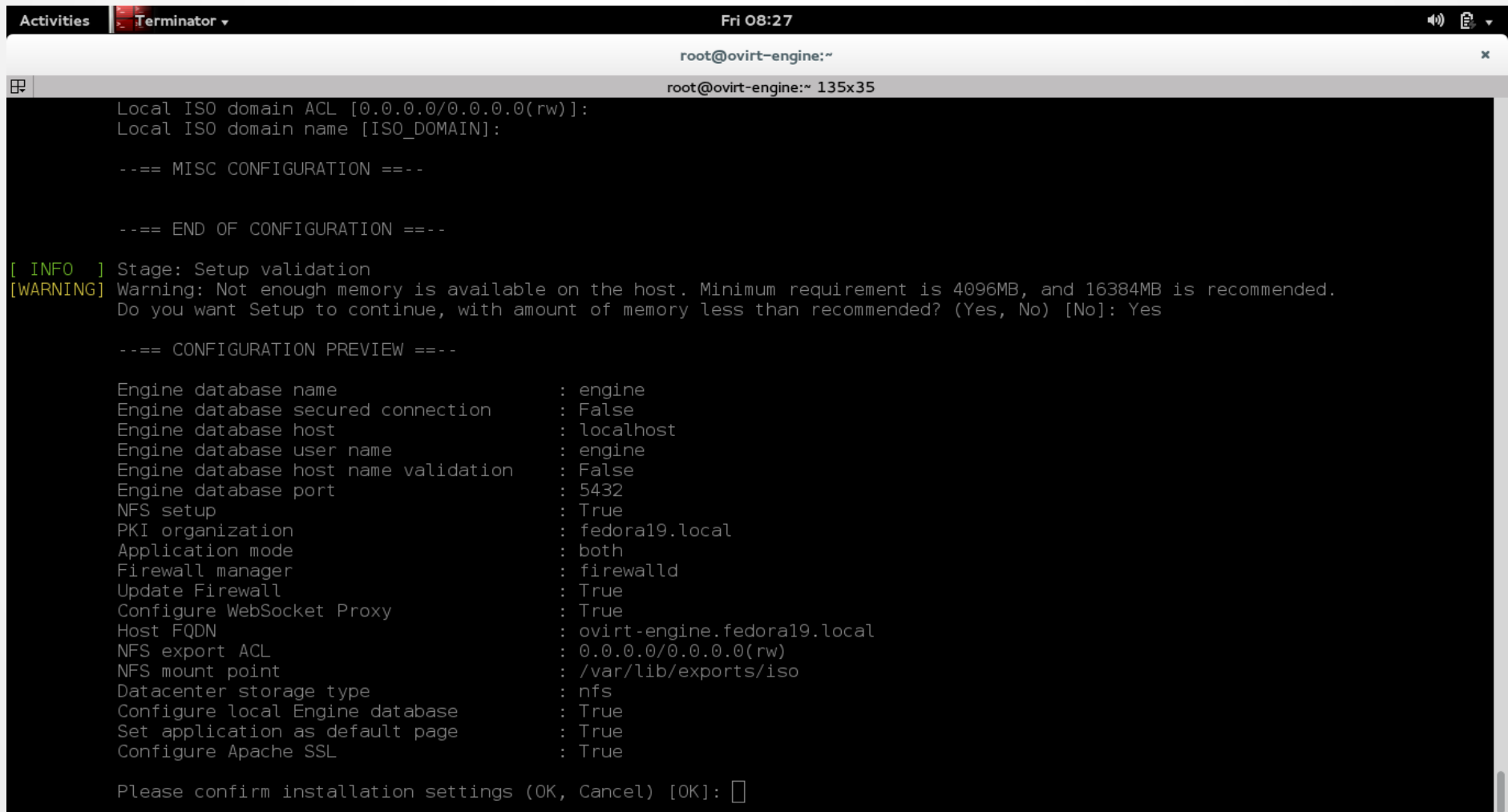
--== APACHE CONFIGURATION ==--

Setup can configure apache to use SSL using a certificate issued from the internal CA.
Do you wish Setup to configure that, or prefer to perform that manually? (Automatic, Manual) [Automatic]:
Setup can configure the default page of the web server to present the application home page. This may conflict with existing applications.
Do you wish to set the application as the default page of the web server? (Yes, No) [Yes]:
```

Using virt-manager for your environment

- Set oVirt Engine

engine-setup



The screenshot shows a terminal window titled "Terminator" with a status bar indicating "Fri 08:27". The terminal prompt is "root@ovirt-engine:~". The output of the "engine-setup" command is as follows:

```
Local ISO domain ACL [0.0.0.0/0.0.0.0(rw)]:
Local ISO domain name [ISO_DOMAIN]:

--== MISC CONFIGURATION ==--

--== END OF CONFIGURATION ==--

[ INFO ] Stage: Setup validation
[WARNING] Warning: Not enough memory is available on the host. Minimum requirement is 4096MB, and 16384MB is recommended.
Do you want Setup to continue, with amount of memory less than recommended? (Yes, No) [No]: Yes

--== CONFIGURATION PREVIEW ==--

Engine database name           : engine
Engine database secured connection : False
Engine database host           : localhost
Engine database user name       : engine
Engine database host name validation : False
Engine database port            : 5432
NFS setup                       : True
PKI organization                : fedora19.local
Application mode                 : both
Firewall manager                 : firewalld
Update Firewall                  : True
Configure WebSocket Proxy        : True
Host FQDN                        : ovirt-engine.fedora19.local
NFS export ACL                   : 0.0.0.0/0.0.0.0(rw)
NFS mount point                  : /var/lib/exports/iso
Datacenter storage type          : nfs
Configure local Engine database  : True
Set application as default page  : True
Configure Apache SSL              : True

Please confirm installation settings (OK, Cancel) [OK]:
```

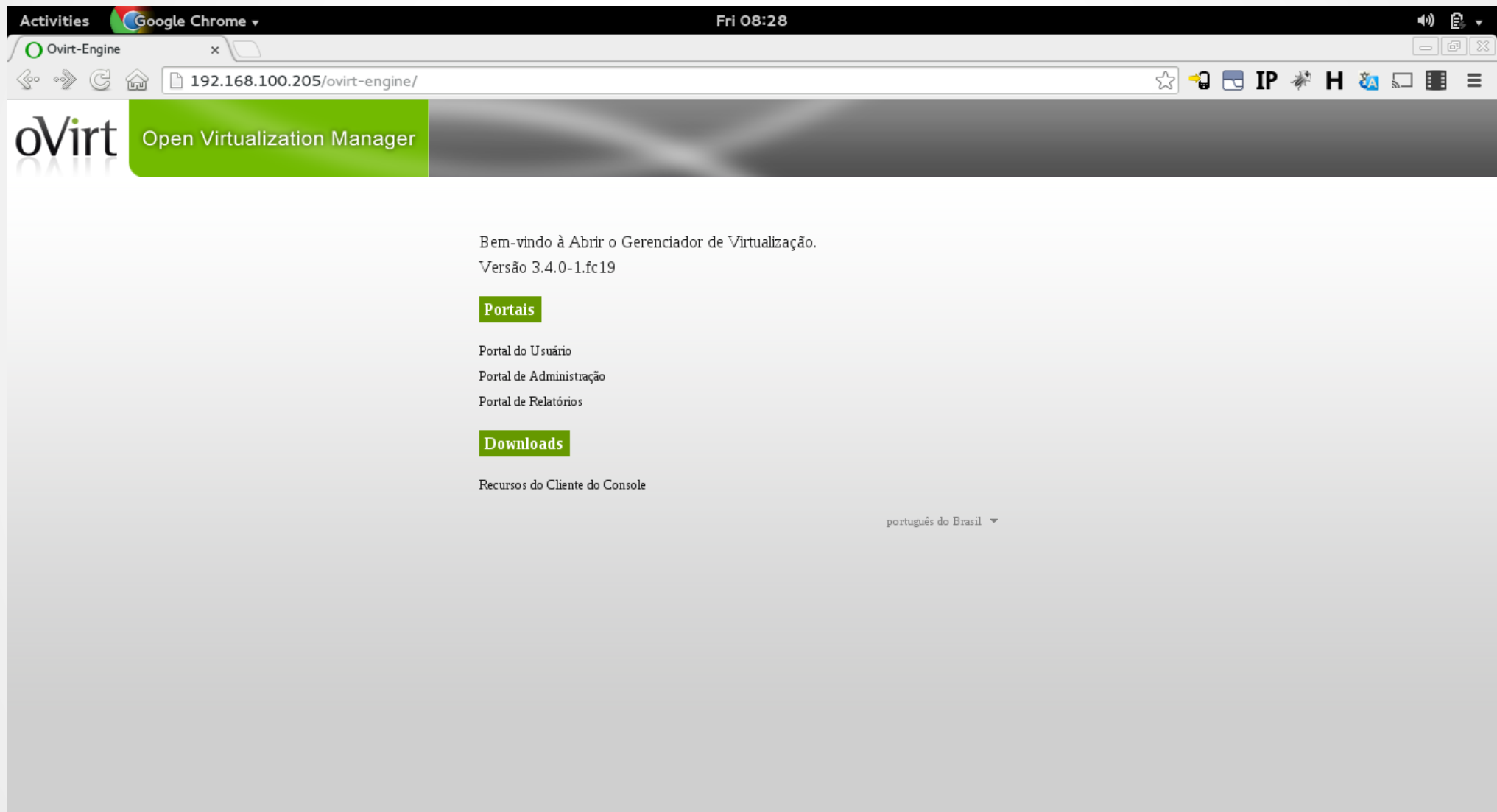
Create first installation using Fedora Node

- Install repo oVirt in Fedora 19:

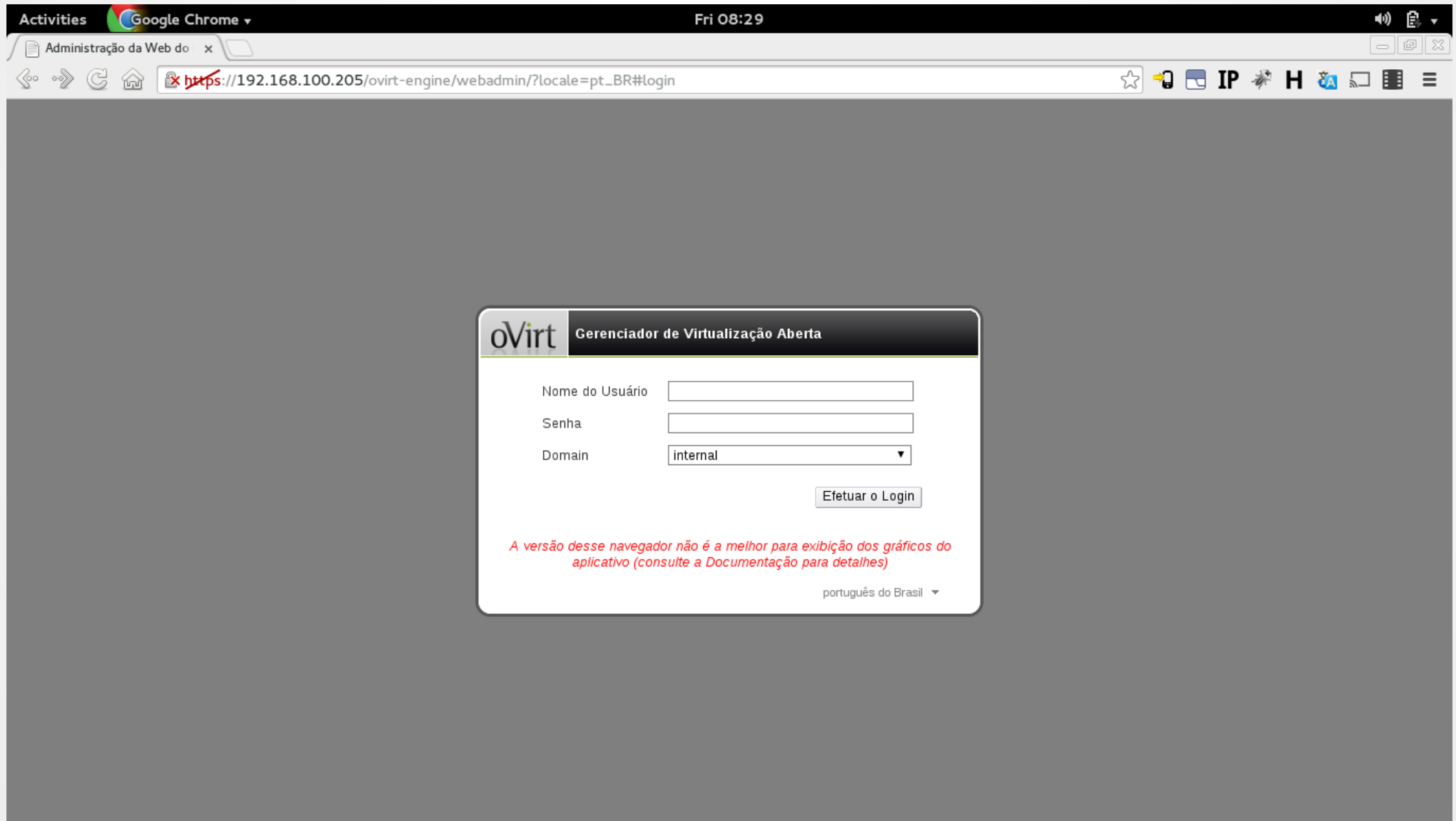
```
# yum localinstall -y http://resources.ovirt.org/releases/ovirt-release.noarch.rpm
```

- Add Fedora Node in oVirt Engine

Create first installation using Fedora Node



Create first installation using Fedora Node



Create first installation using Fedora Node

Activities Google Chrome Fri 08:29

Administração da Web do x

https://192.168.100.205/ovirt-engine/webadmin/?locale=pt_BR#hosts

oVirt Open Virtualization Manager

Usuário Conectado: admin | Configurar | Guia | Sobre | Sair

Opinião

Busca: Host:

Data Centers Clusters **Hosts** Redes Storage Discos Máquinas Virtuais Pools Templates Volumes Usuários Eventos

Sistema

Expandir tudo Recolher tudo

Sistema

- Data Centers
 - Default
 - Storage
 - Redes
 - ovirtmgmt
 - Templates
 - Clusters
 - Default
 - Hosts
 - MVs
 - Provedores Externos
 - ovirt-image-repository

Novo Editar Remover Ativar Manutenção Selecionar como SPM Configurar o Storage Local Gerenciamento de Potência Atribuir Tags Atualizar os Recursos

Nome	Nome do Host/IP	Cluster	Data Center	Status	Máquinas Virtuais	Memória	CPU	Rede	SPM
Nenhum item para efetuar a exibição									

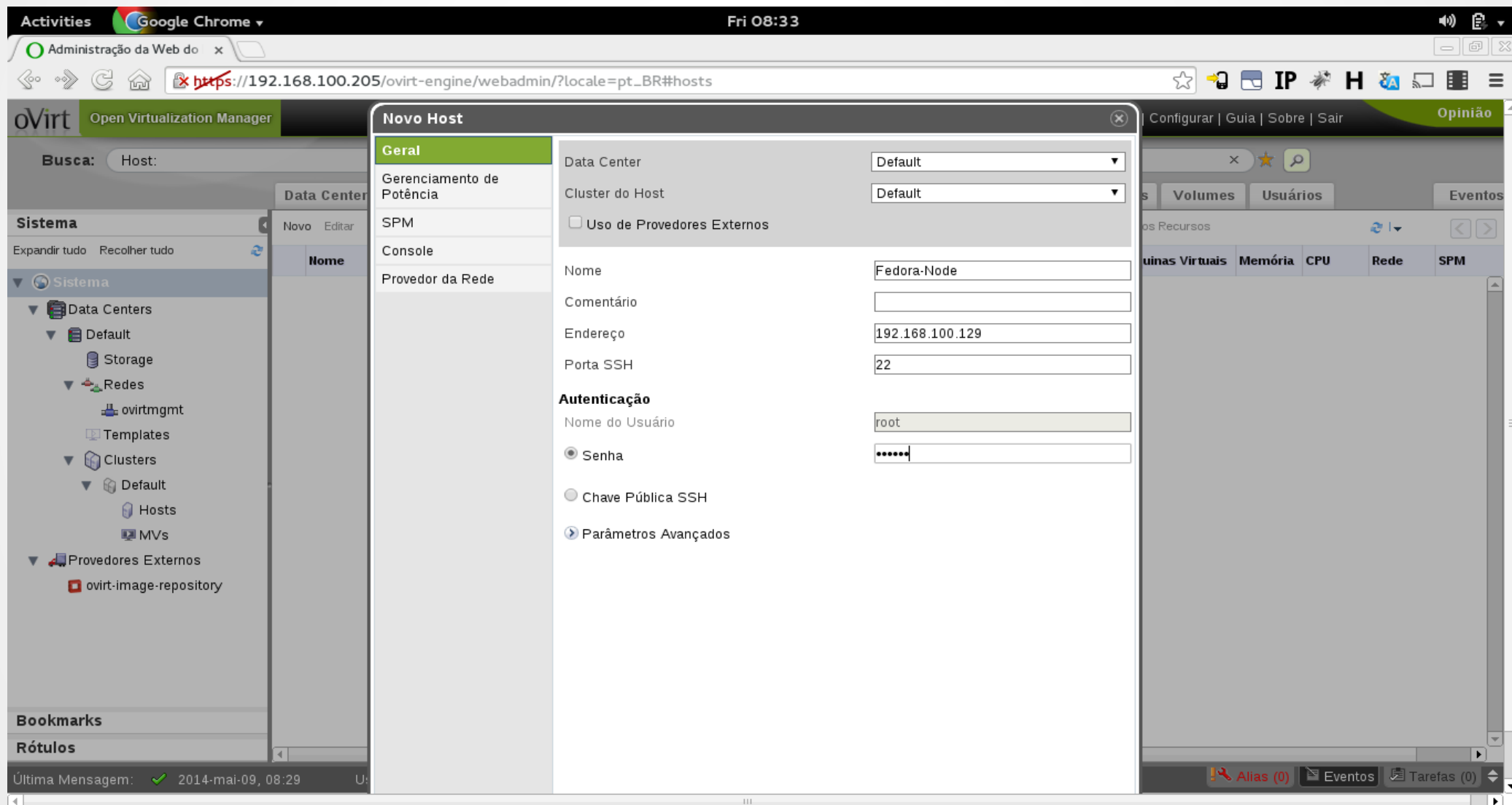
Bookmarks

Rótulos

Última Mensagem: 2014-mai-09, 08:29 User admin logged in.

Alias (0) Eventos Tarefas (0)

Create first installation using Fedora Node



Create first installation using Fedora Node

Activities Google Chrome Fri 08:33

Administração da Web do x

https://192.168.100.205/ovirt-engine/webadmin/?locale=pt_BR#hosts

oVirt Open Virtualization Manager

Usuário Conectado: admin | Configurar | Guia | Sobre | Sair

Opinião

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Sistema

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Novo Editar Remover Ativar Manutenção Selecionar como SPM Configurar o Storage Local Gerenciamento de Potência Atribuir Tags Atualizar os Recursos

Nome	Nome do Host/IP	Cluster	Data Center	Status	Máquinas Virtuais	Memória	CPU	Rede	SPM
Fedora-Node	192.168.100.129	Default	Default	Installing	0	0%	0%	0%	Normal

Bookmarks

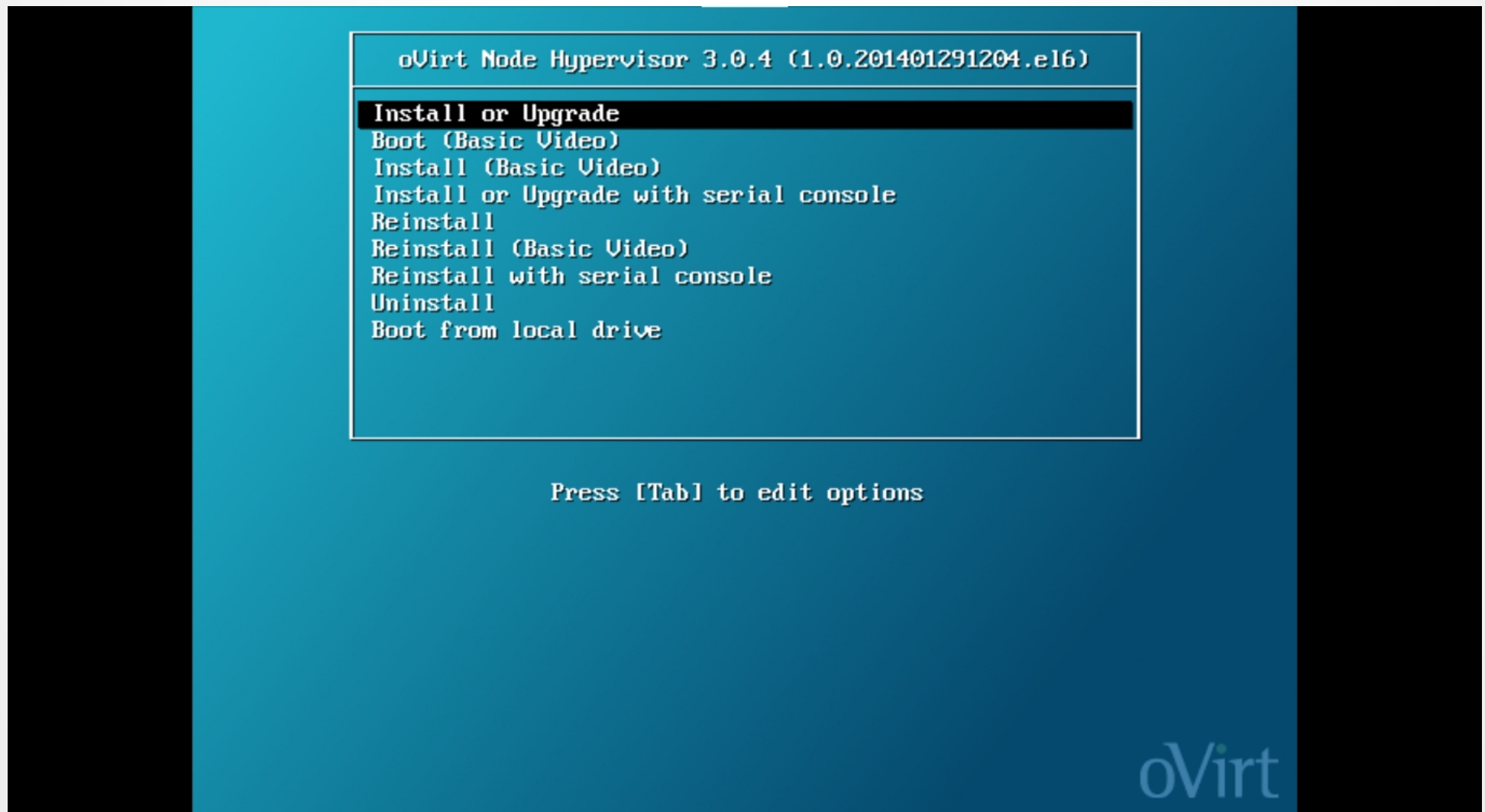
Rótulos

Última Mensagem: 2014-mai-09, 08:33 Installing Host Fedora-Node. Stage: Environment packages setup.

Alias (1) Eventos Tarefas (1)

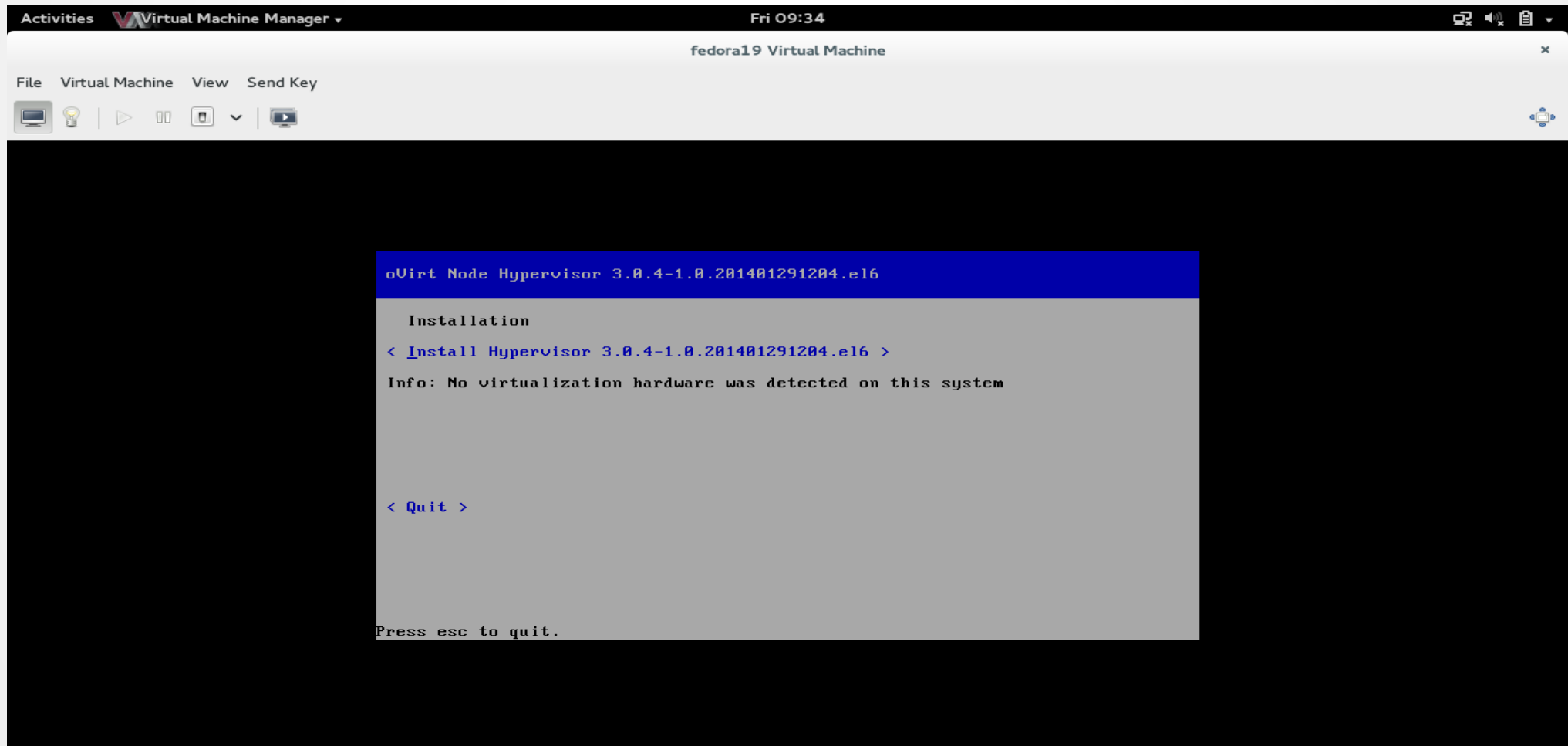
Create second installation using oVirt Node

- Install oVirt Node



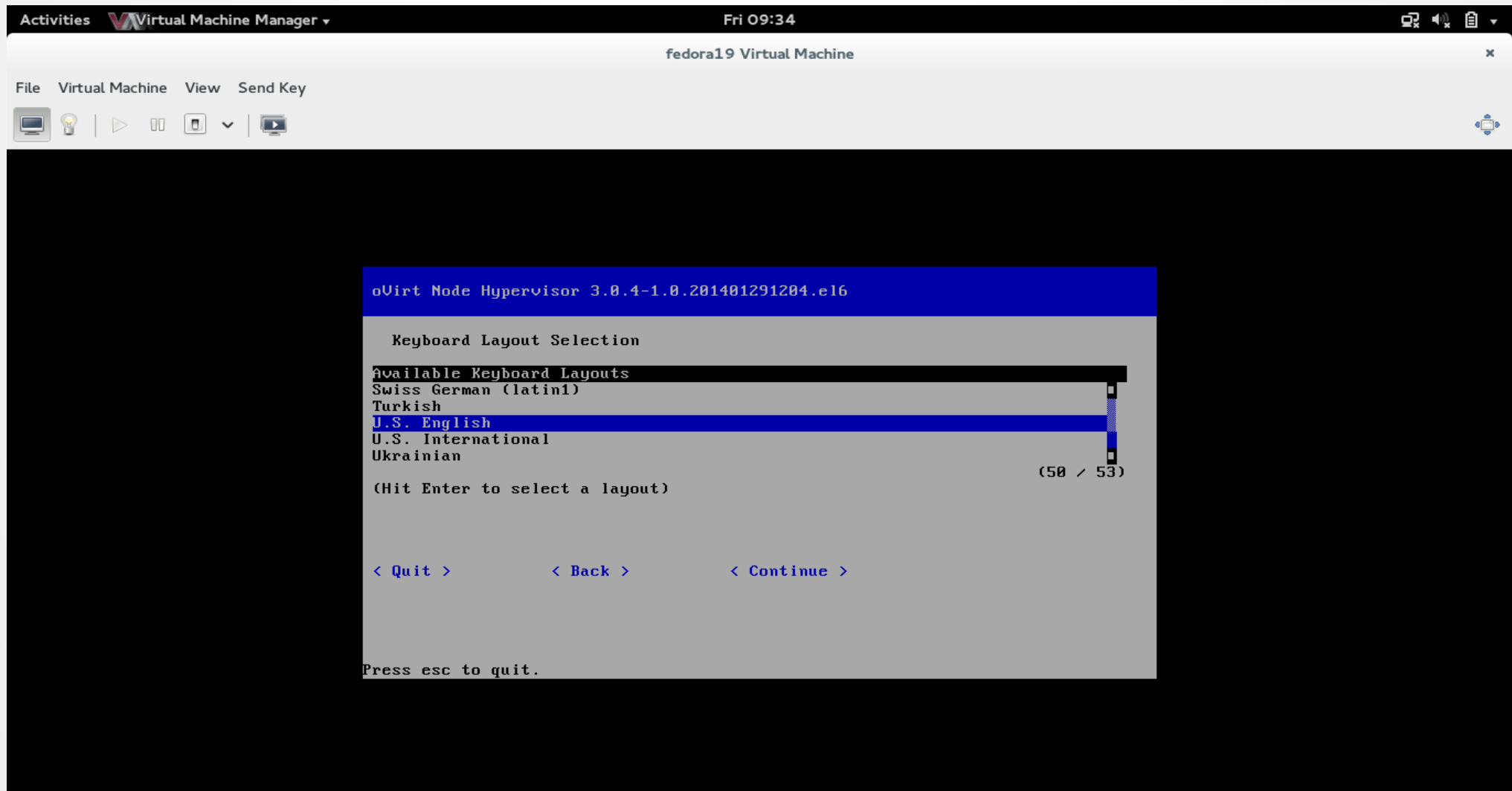
Create second installation using oVirt Node

- Install oVirt Node



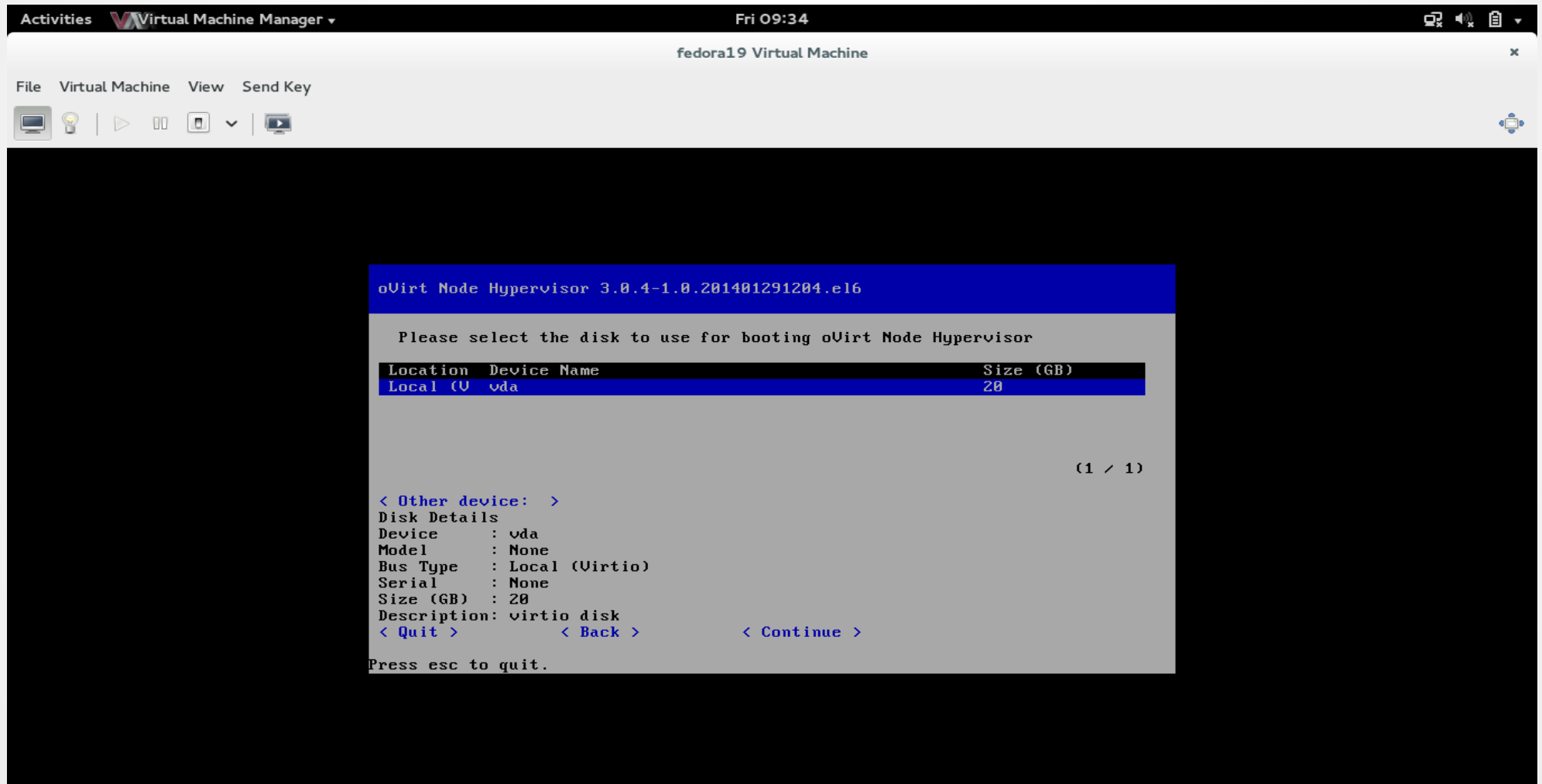
Create second installation using oVirt Node

- Install oVirt Node



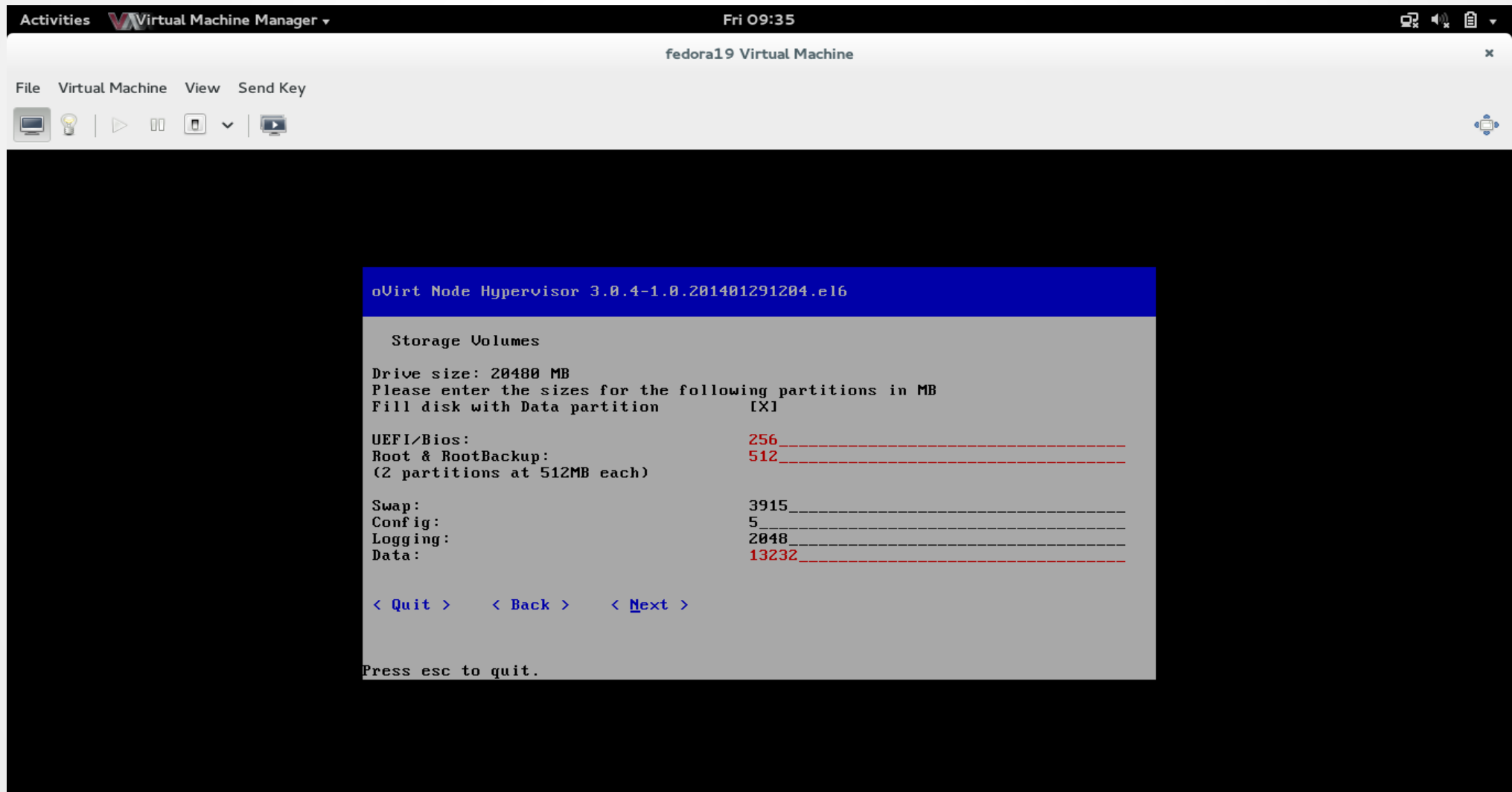
Create second installation using oVirt Node

- Install oVirt Node



Create second installation using oVirt Node

- Install oVirt Node



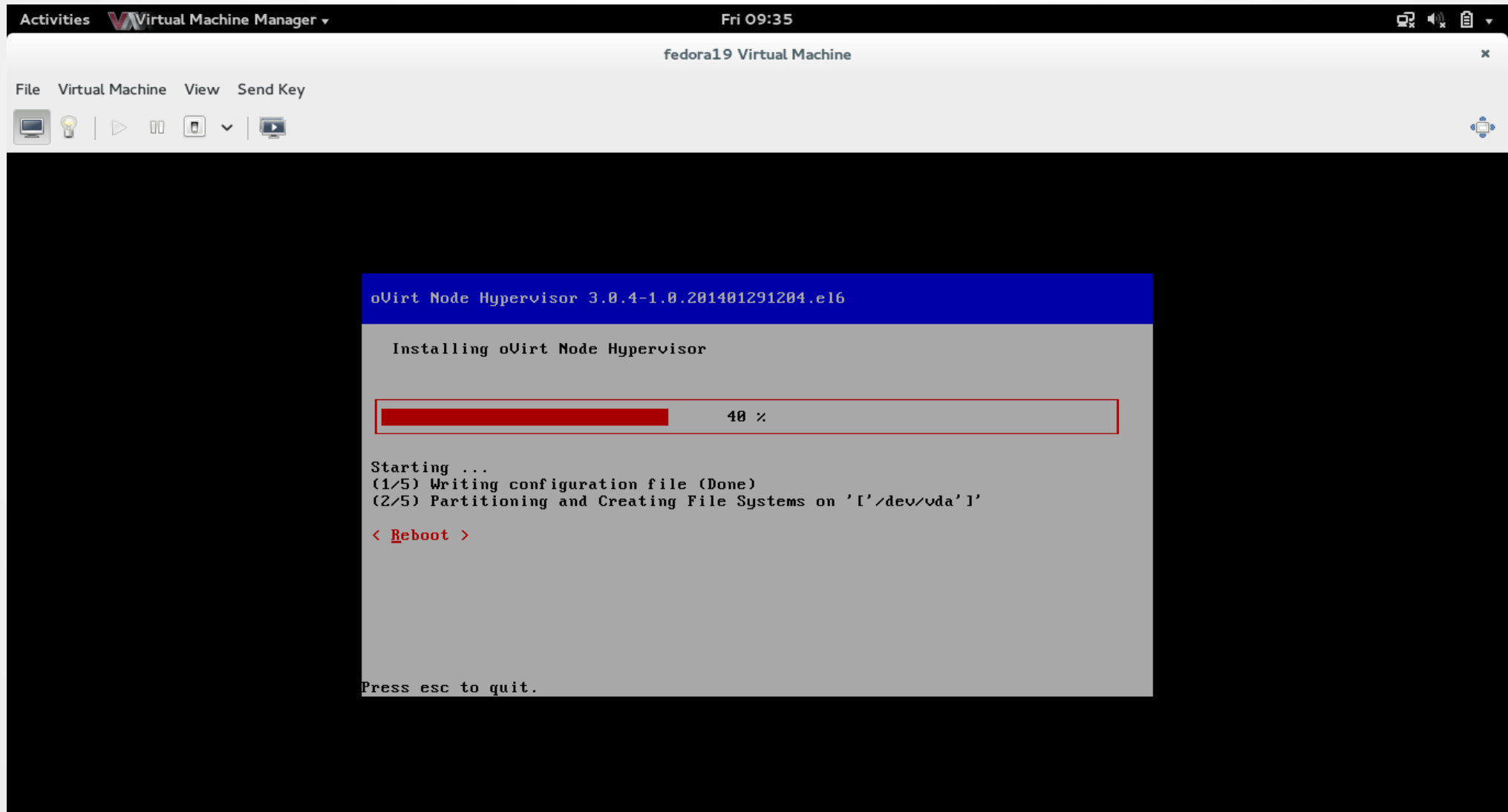
Create second installation using oVirt Node

- Install oVirt Node



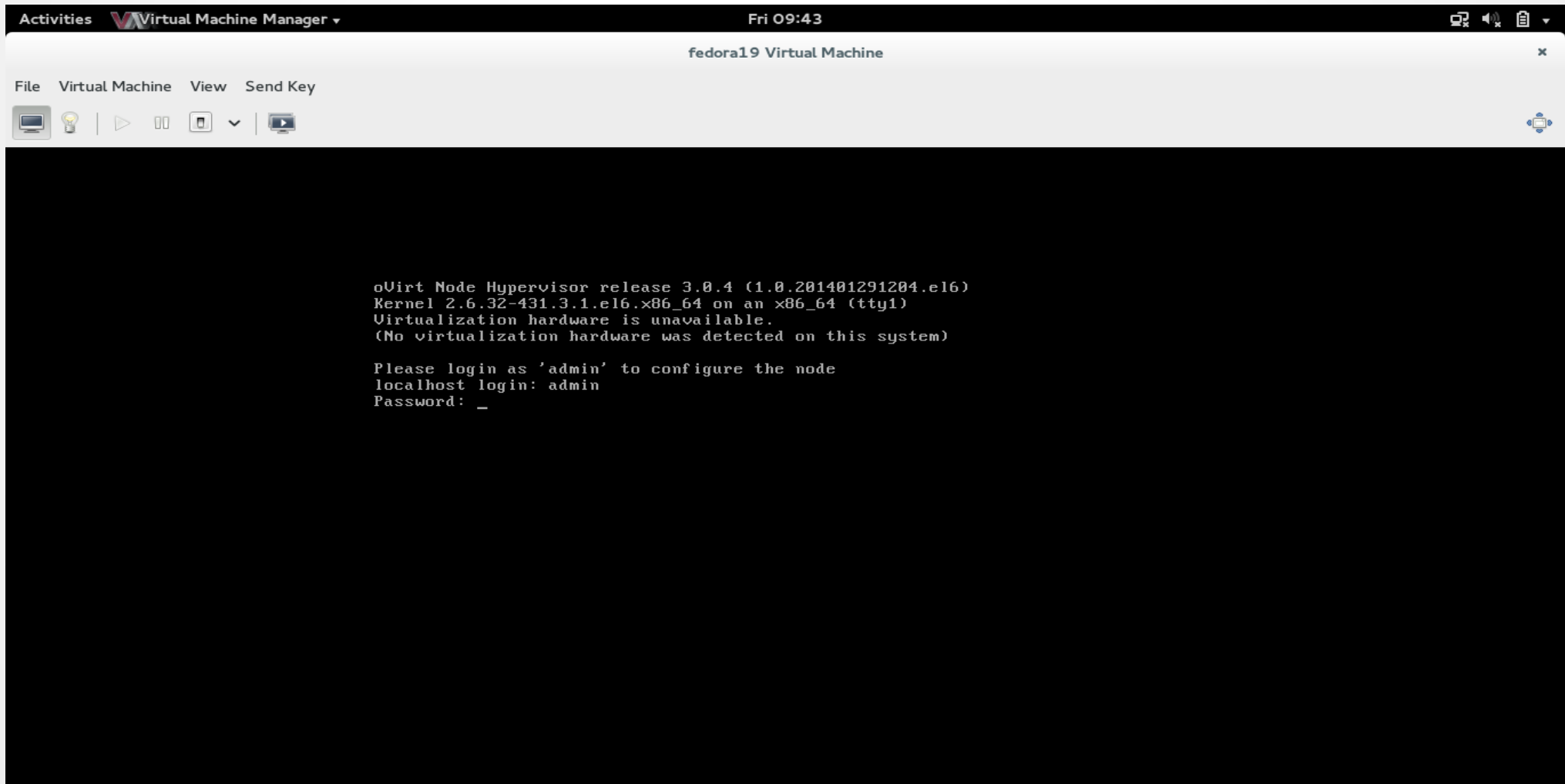
Create second installation using oVirt Node

- Install oVirt Node



Create second installation using oVirt Node

- Install oVirt Node



The screenshot shows a terminal window titled 'fedora19 Virtual Machine' within a 'Virtual Machine Manager' interface. The terminal output displays the oVirt Node Hypervisor release information and a message indicating that virtualization hardware is unavailable. It then prompts the user to login as 'admin' to configure the node.

```
oVirt Node Hypervisor release 3.0.4 (1.0.201401291204.el6)
Kernel 2.6.32-431.3.1.el6.x86_64 on an x86_64 (tty1)
Virtualization hardware is unavailable.
(No virtualization hardware was detected on this system)

Please login as 'admin' to configure the node
localhost login: admin
Password: _
```


Create second installation using oVirt Node

- Install oVirt Node



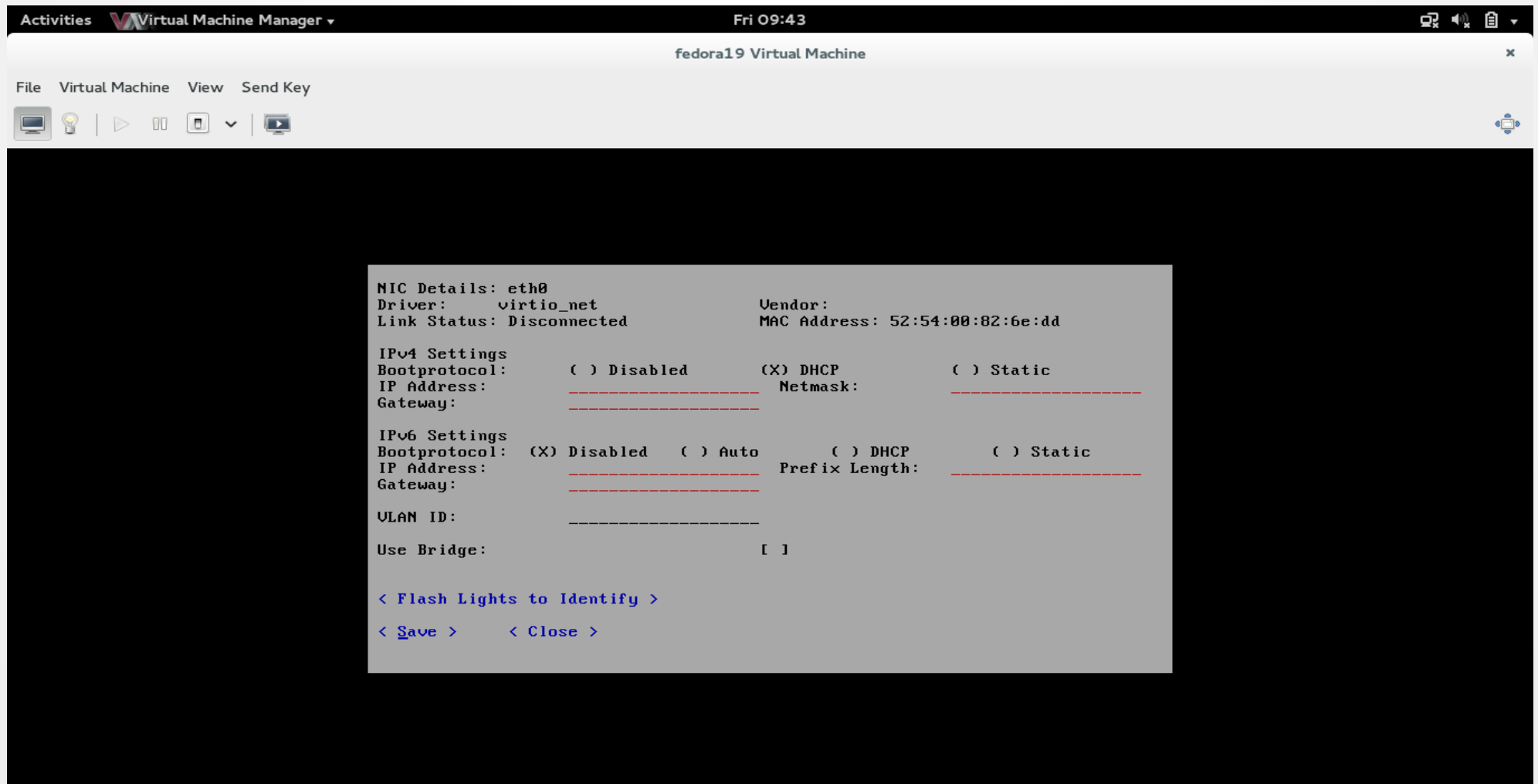
Create second installation using oVirt Node

- Install oVirt Node



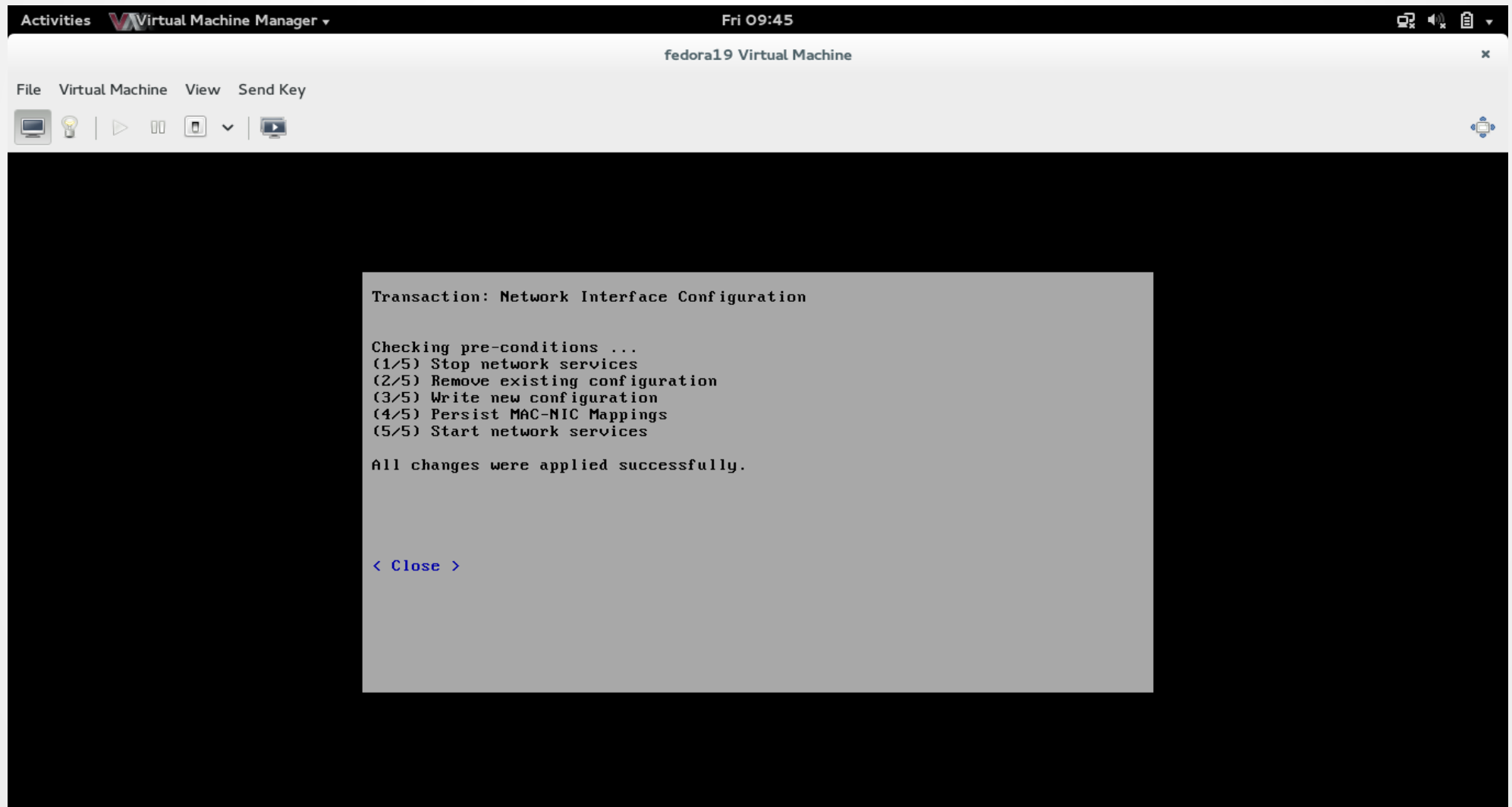
Create second installation using oVirt Node

- Install oVirt Node



Create second installation using oVirt Node

- Install oVirt Node



Create second installation using oVirt Node

- Install oVirt Node



Thanks

firemanxbr@fedoraproject.org

www.ovirt.org

The logo for oVirt, featuring the word "oVirt" in a green, serif font. The "o" is a lighter shade of green than the "Virt".