oVirt

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

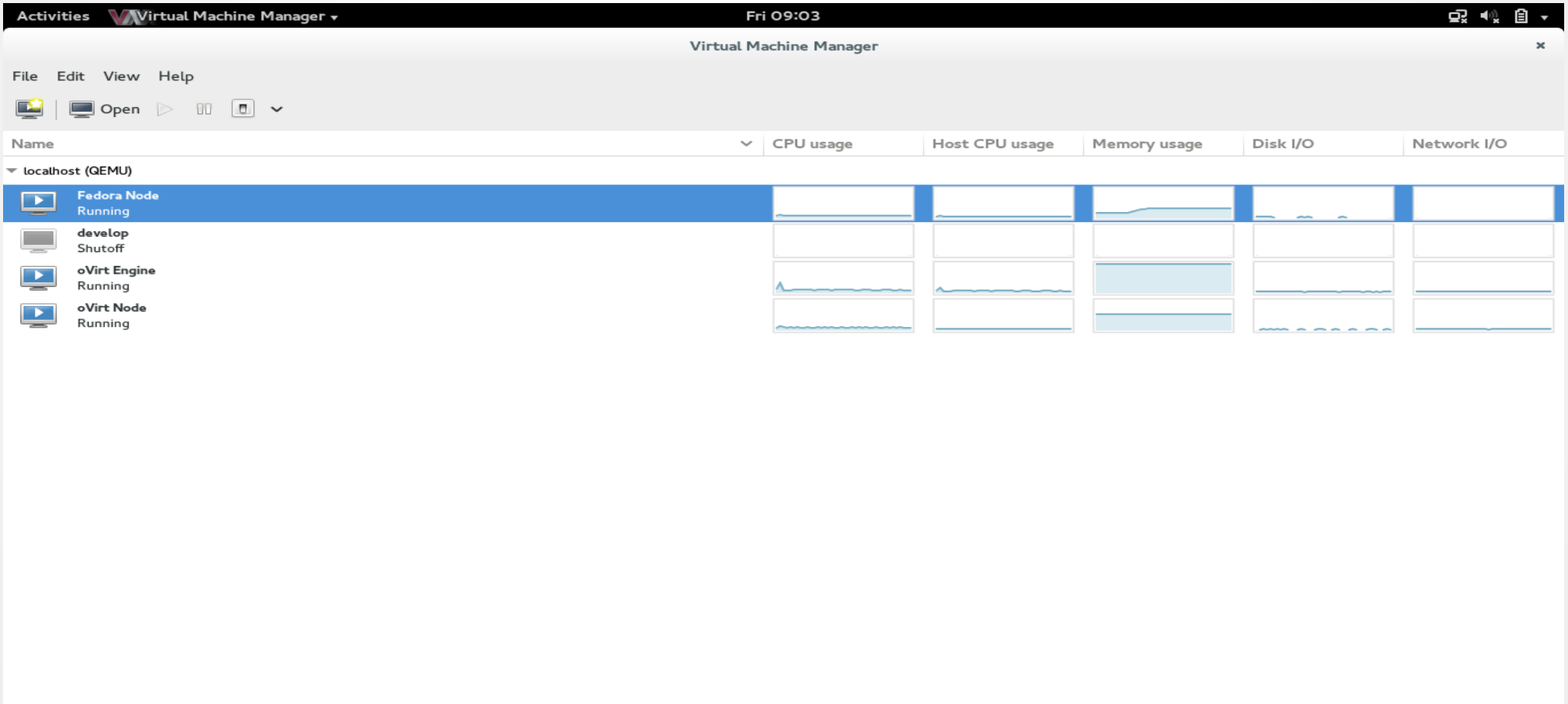
```
[root@firelap ~]# grep -m1 vmx /proc/cpuinfo
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm p
be syscall nx rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc aperfmperf eagerfpu pni 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

```
Activities  Terminator ▾                    Fri 08:26
root@ovirt-engine:~
root@ovirt-engine:~ 135x35

[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 ▾                    Fri 08:26
root@ovirt-engine:~
root@ovirt-engine:~ 135x35
          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]:
          Setup can configure the local postgresql server automatically for the engine to run. This may conflict with existing applicat
ions.
          Would you like Setup to automatically configure postgresql and create Engine database, or prefer to perform that manually? (A
utomatic, 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

```
Activities   Terminator ▾                    Fri 08:27
root@ovirt-engine:~
root@ovirt-engine:~ 135x35
          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]:
```

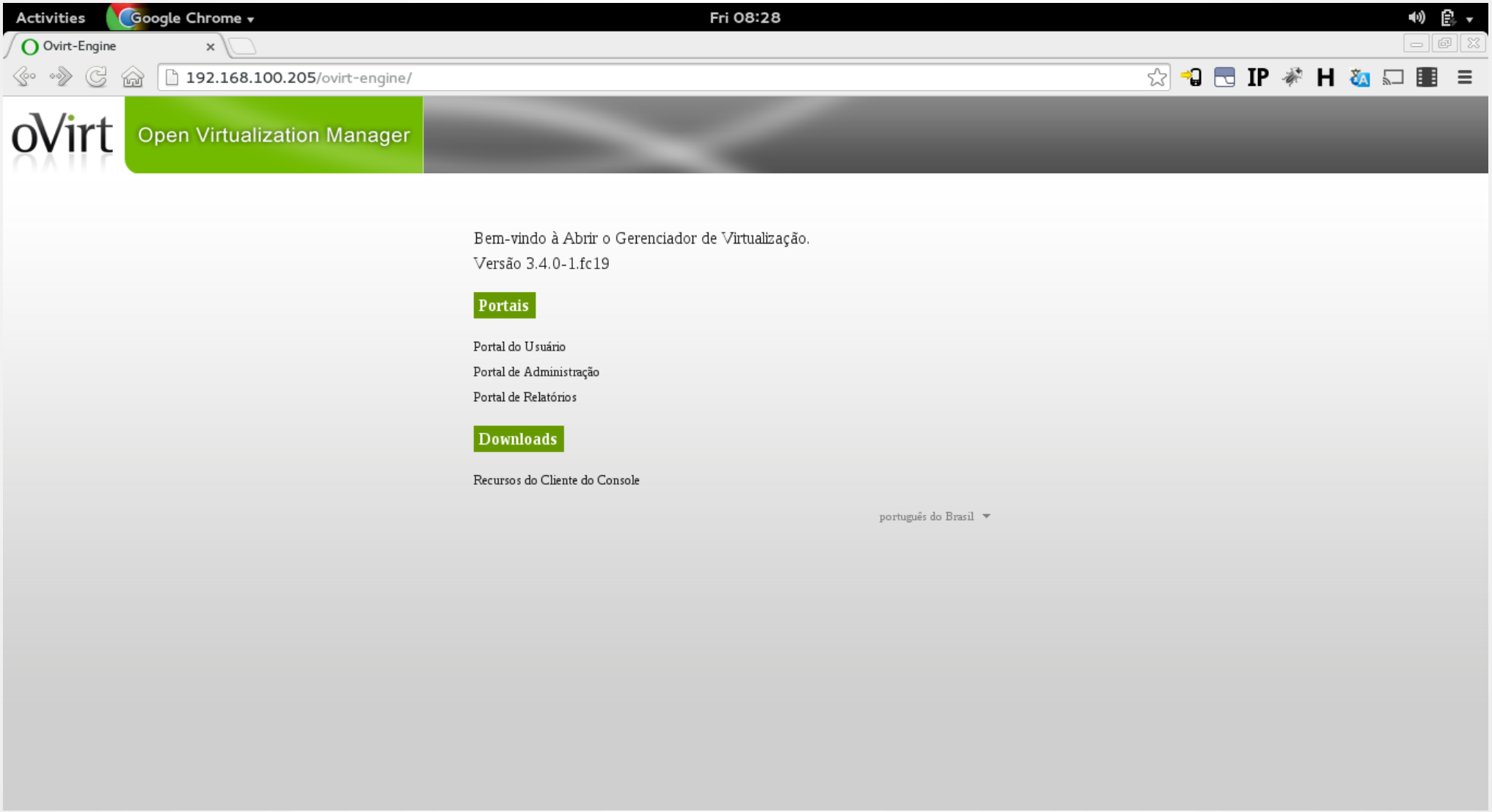
Create first installation using Fedora Node

- Install repo oVirt in Fedora 19:

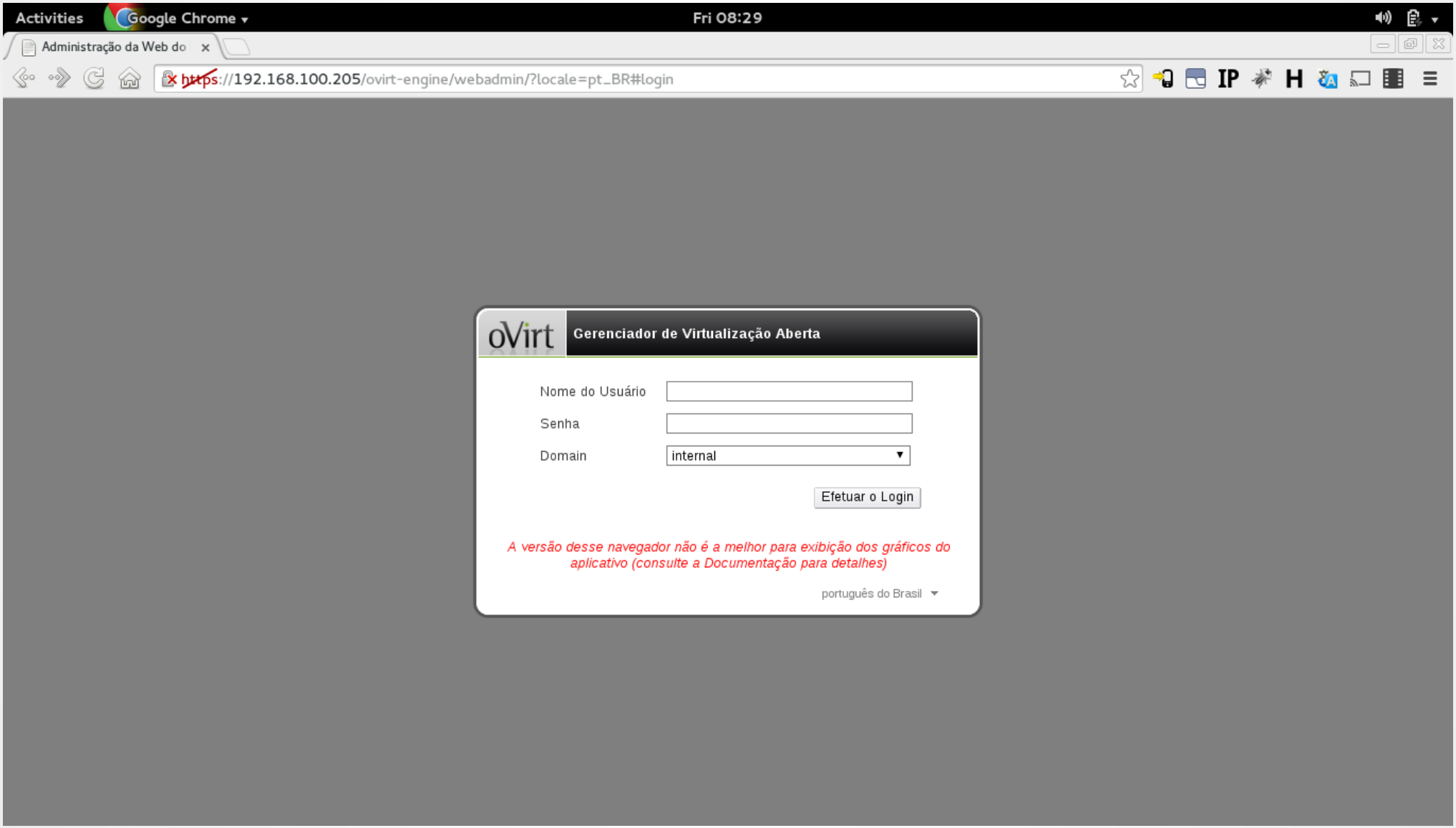
```
# yum localinstall -y http://resources.ovirt.org/releases/ovirt-release.noarch.rpm
```

- Add Fedora Node in oVirt Engine

Create first installation using Fedora Node



Create first installation using Fedora Node



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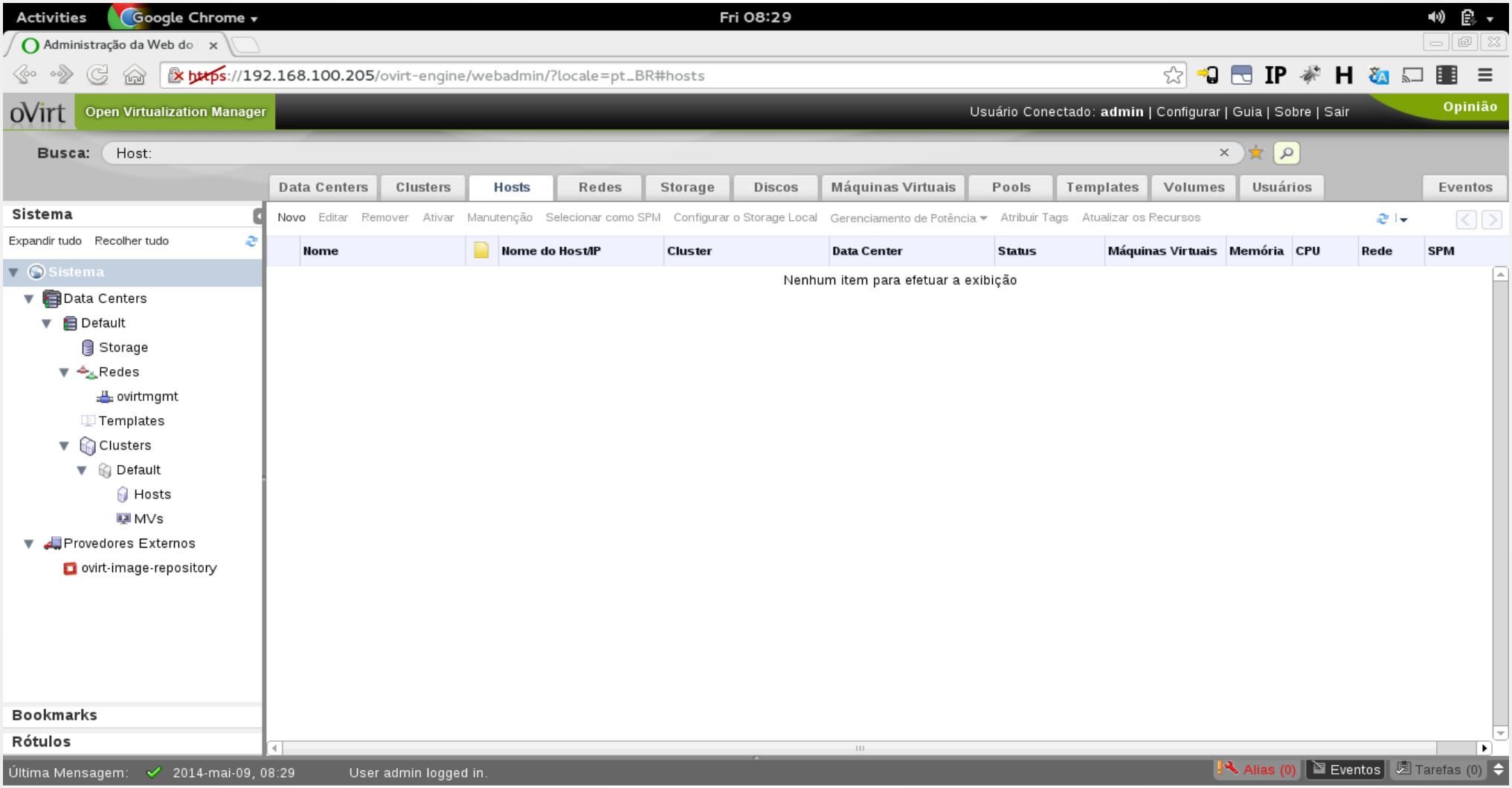

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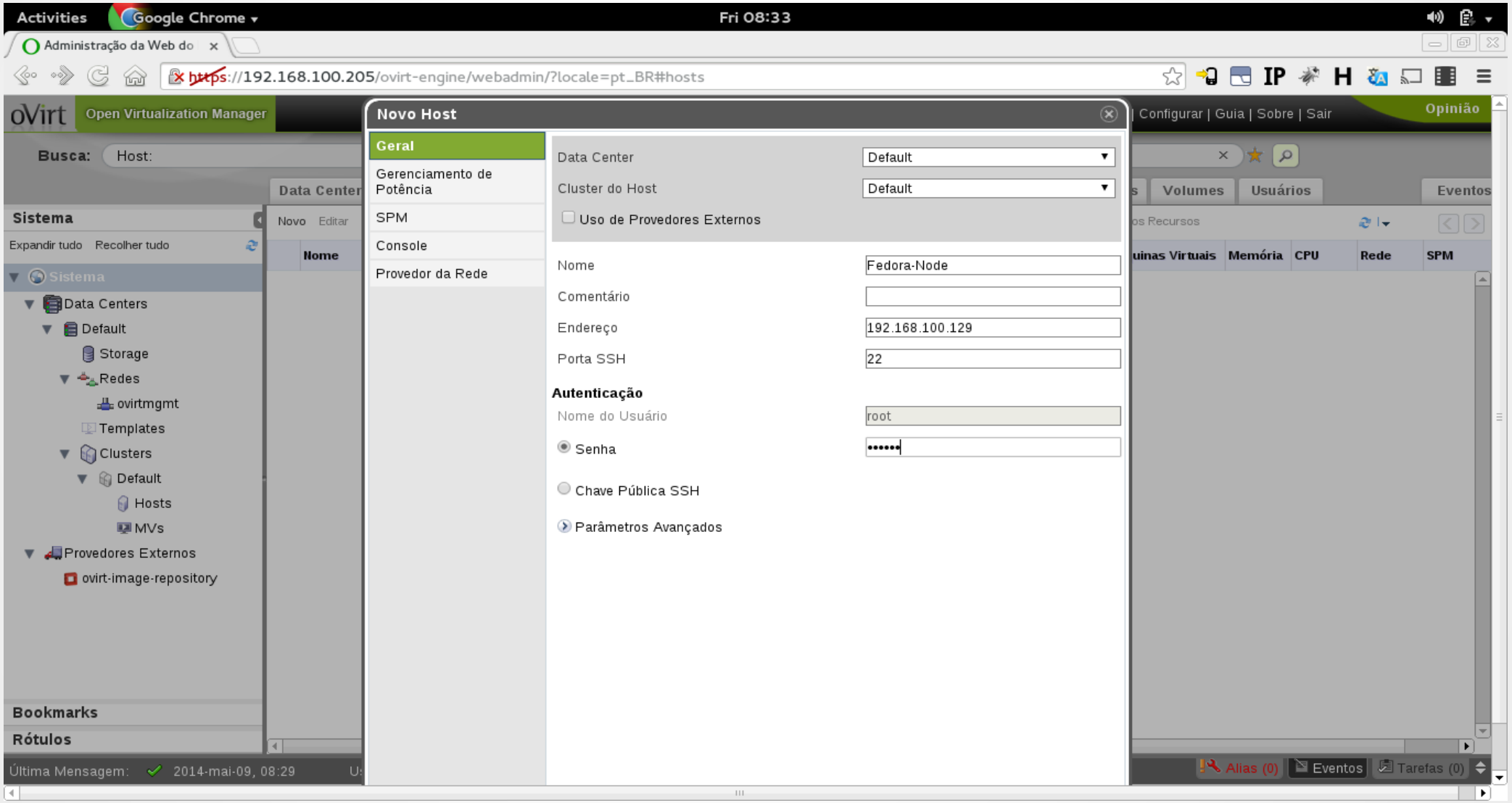

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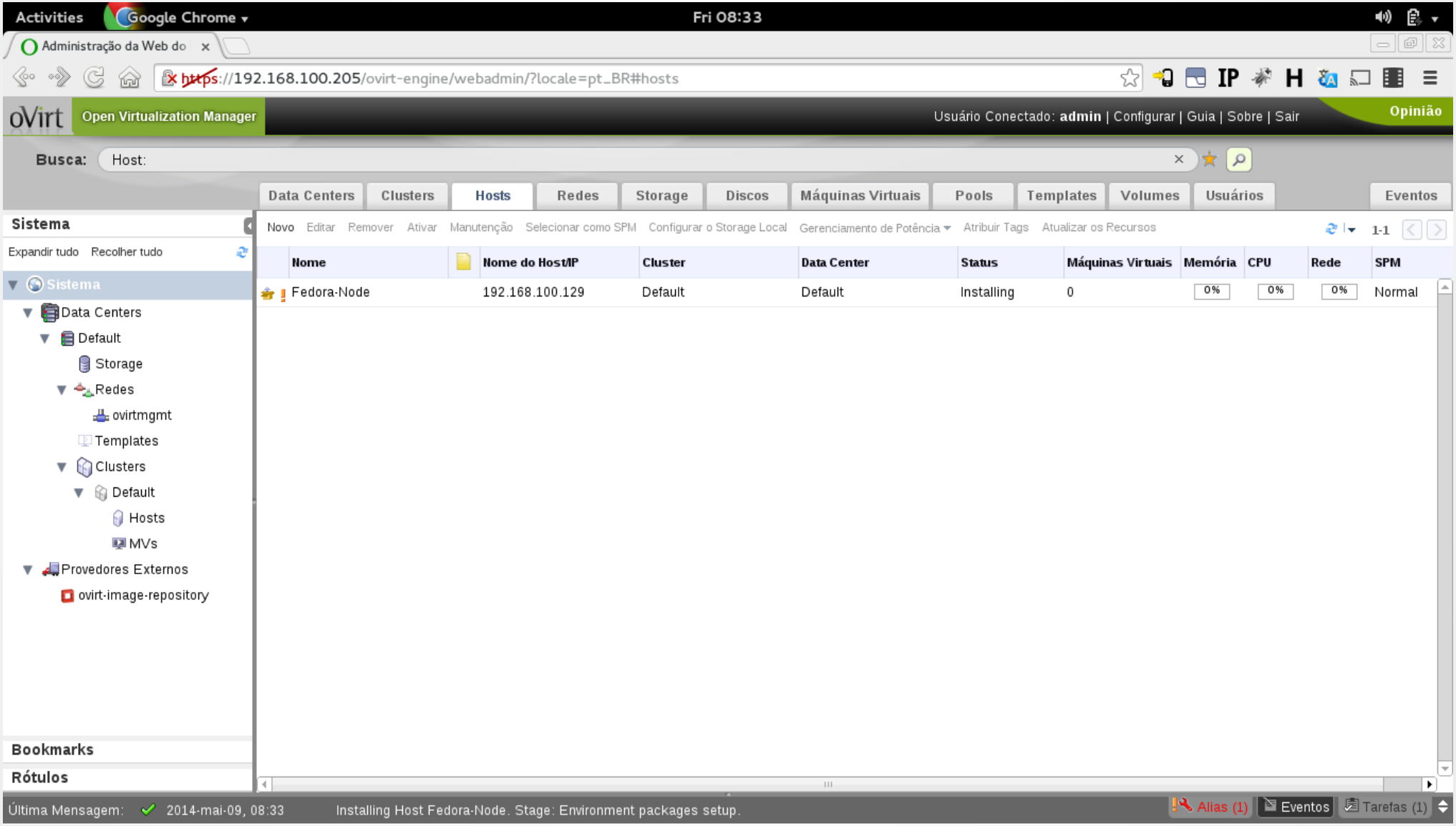
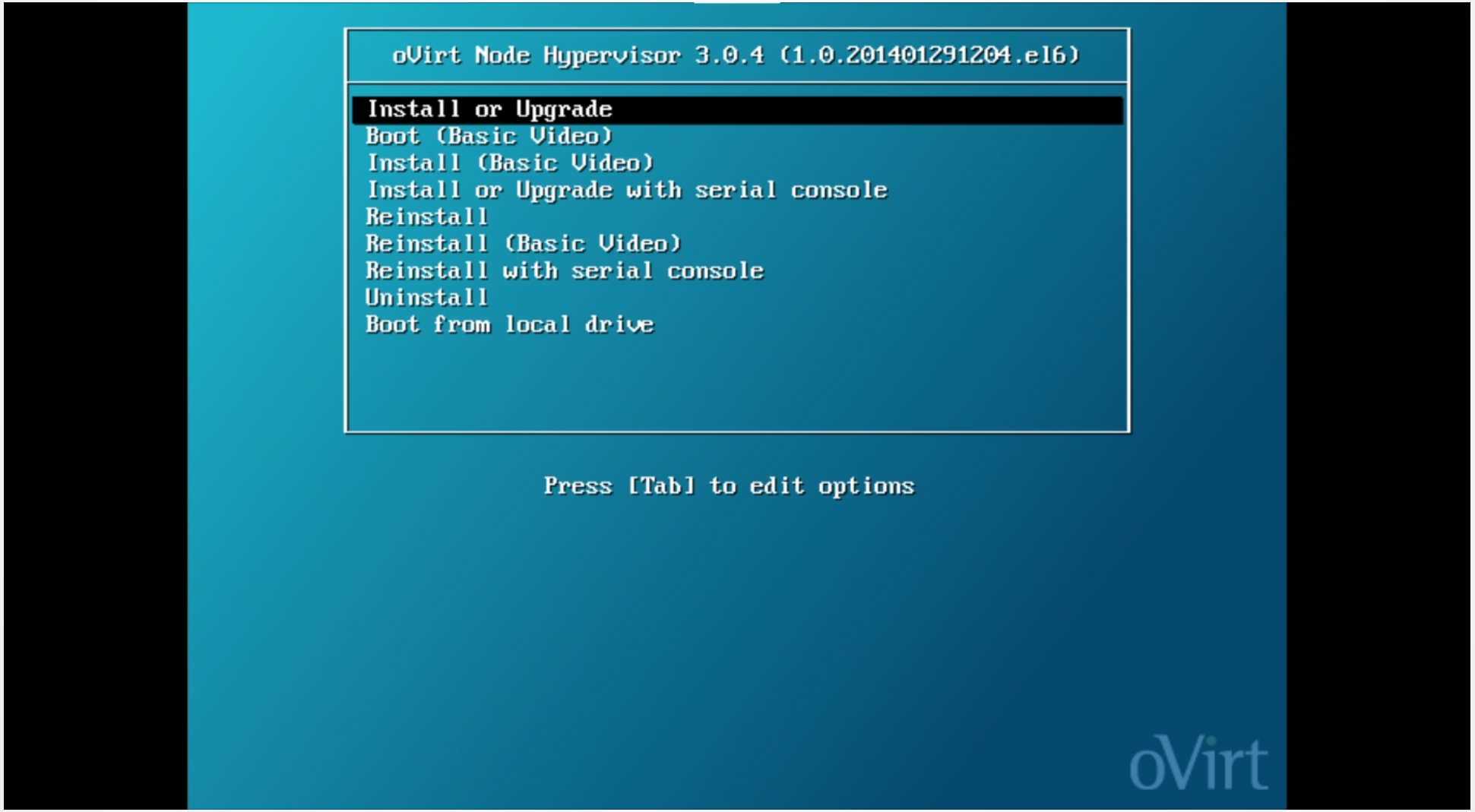


Create second installation using oVirt Node

- Install oVirt Node



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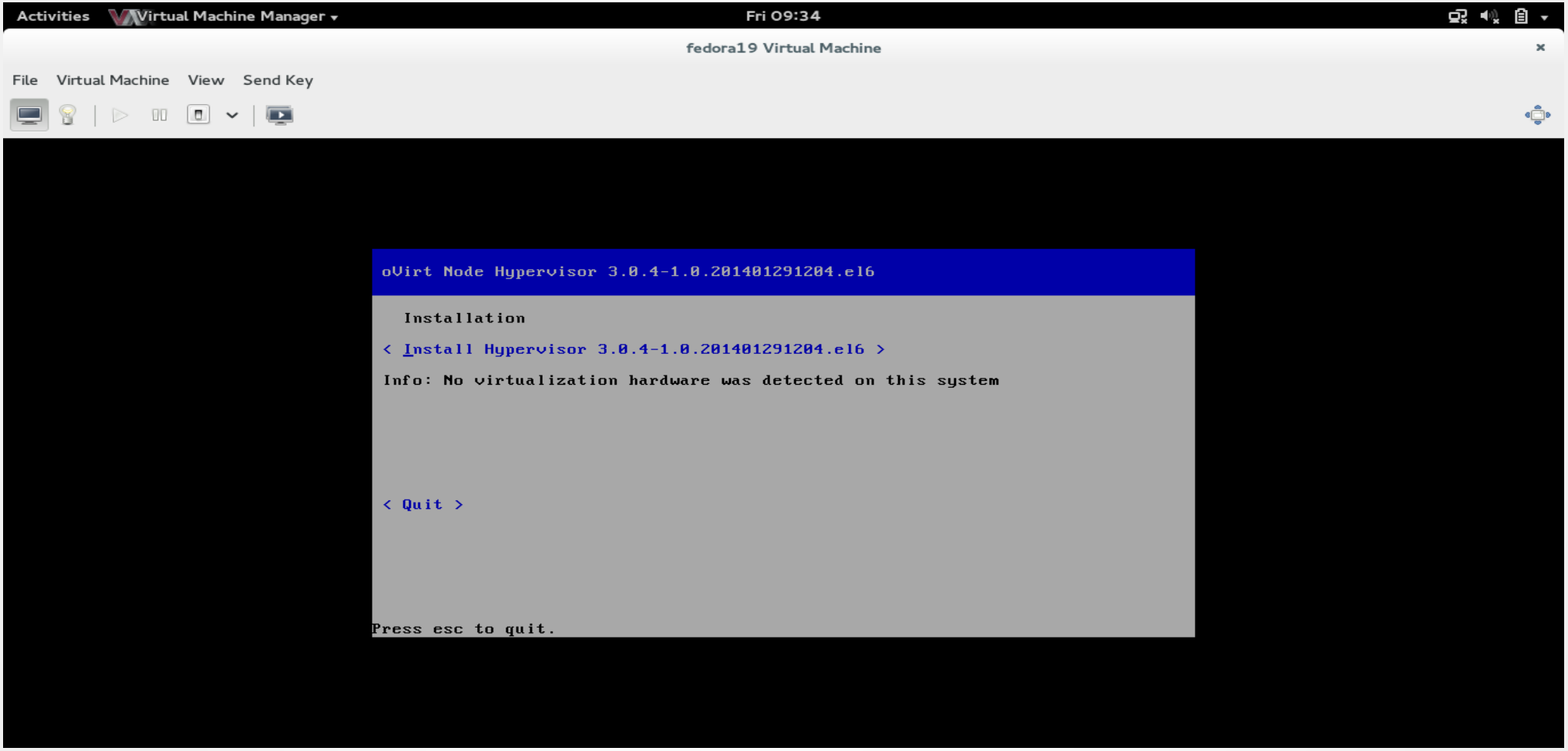

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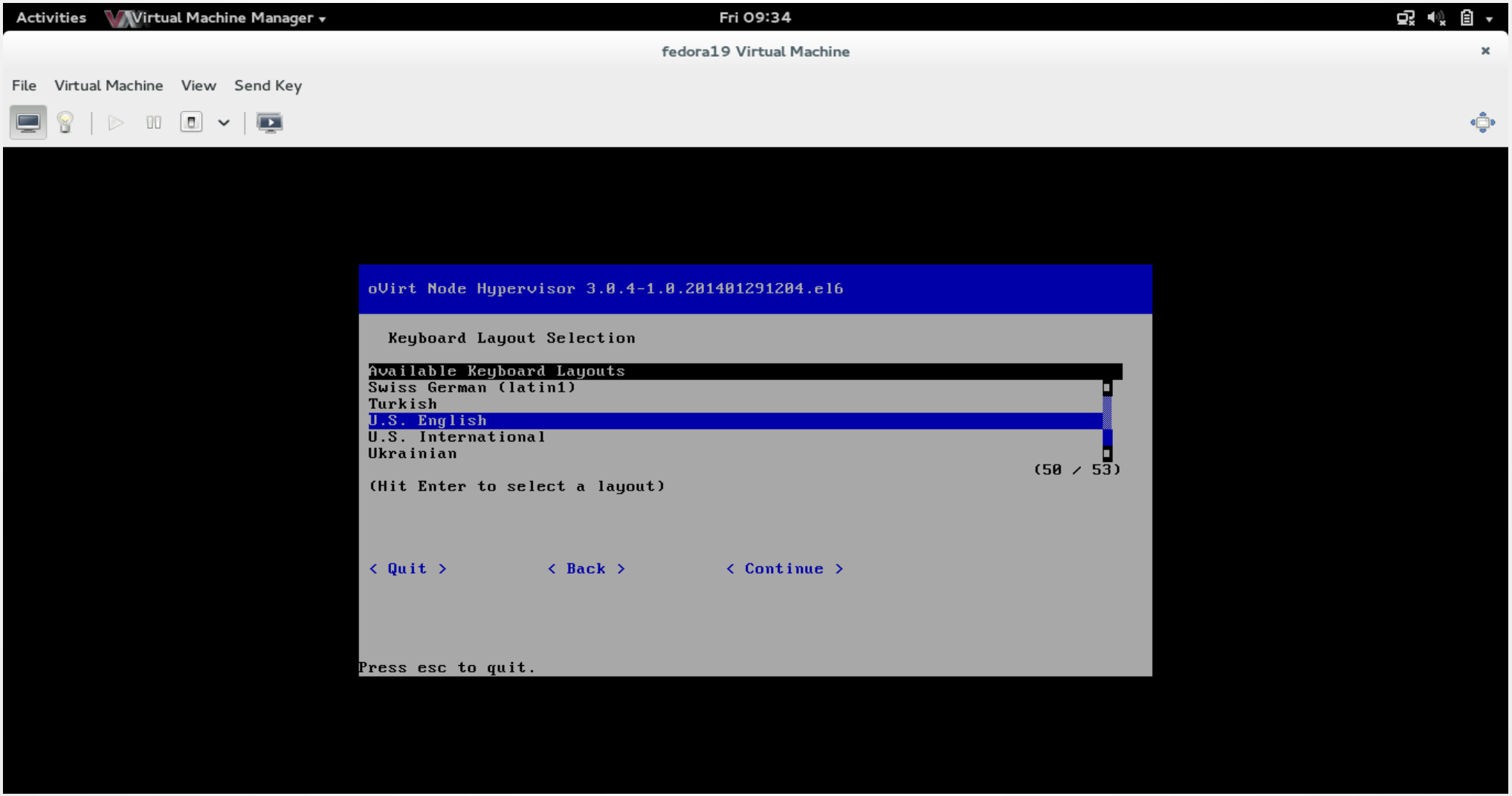

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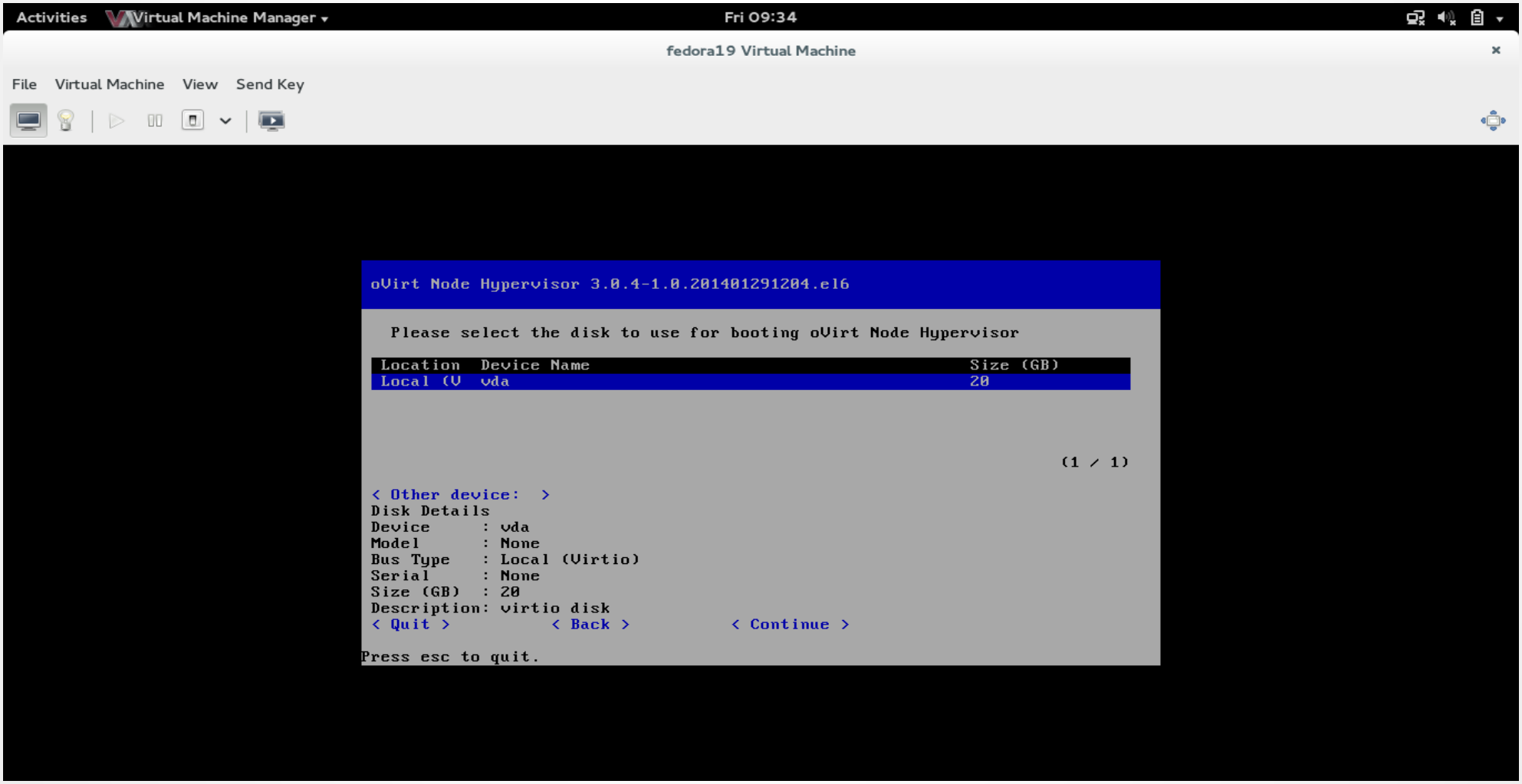

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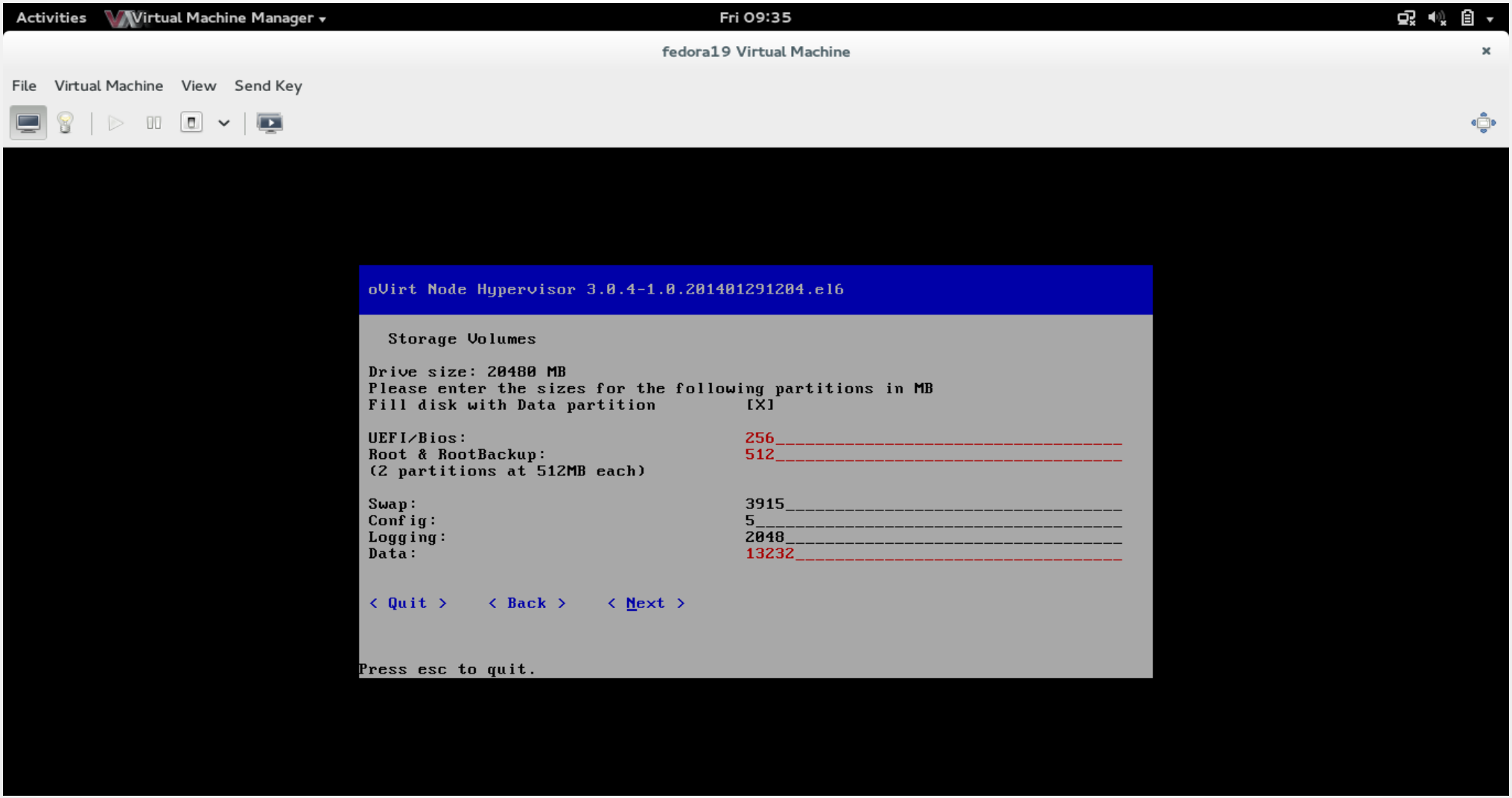

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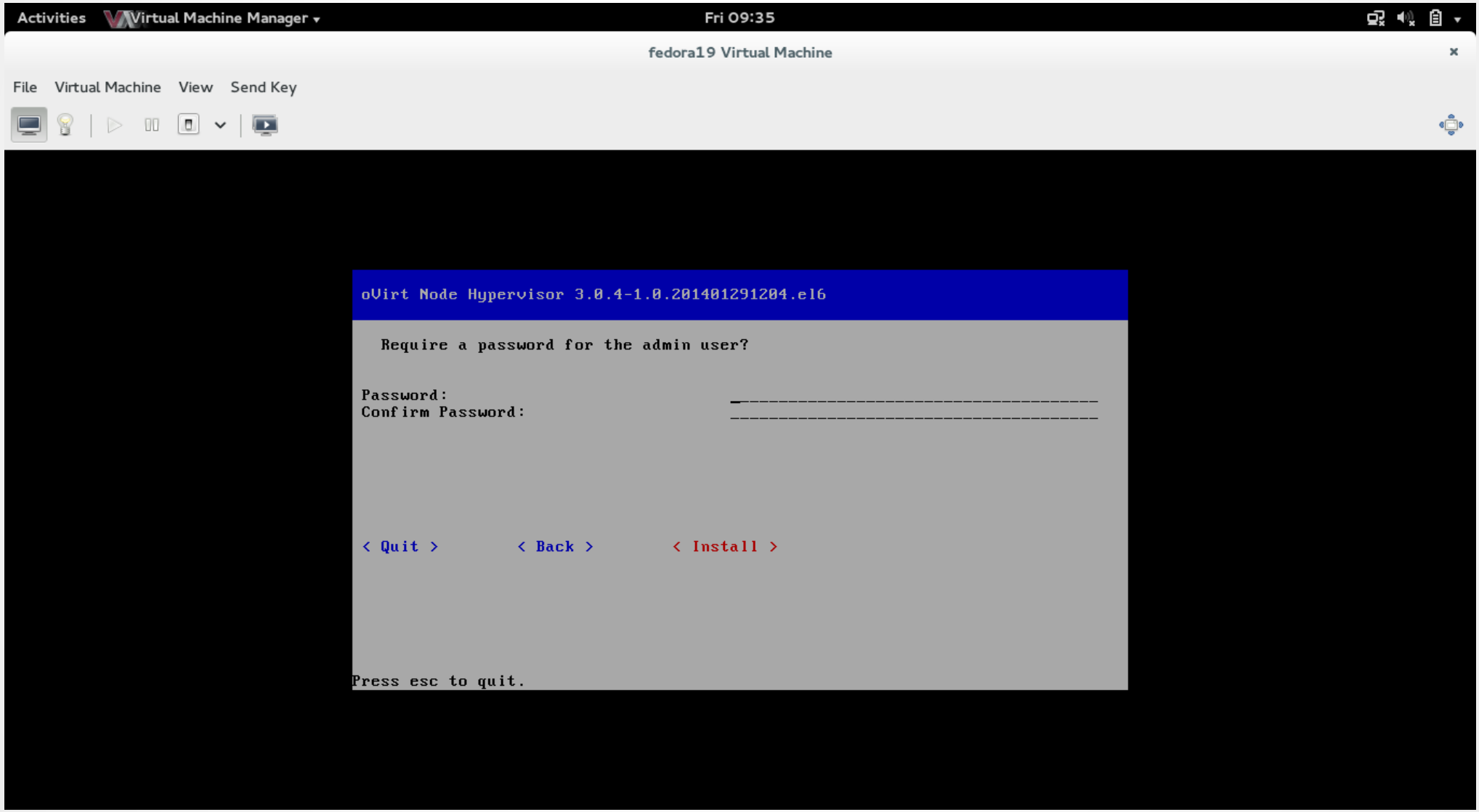

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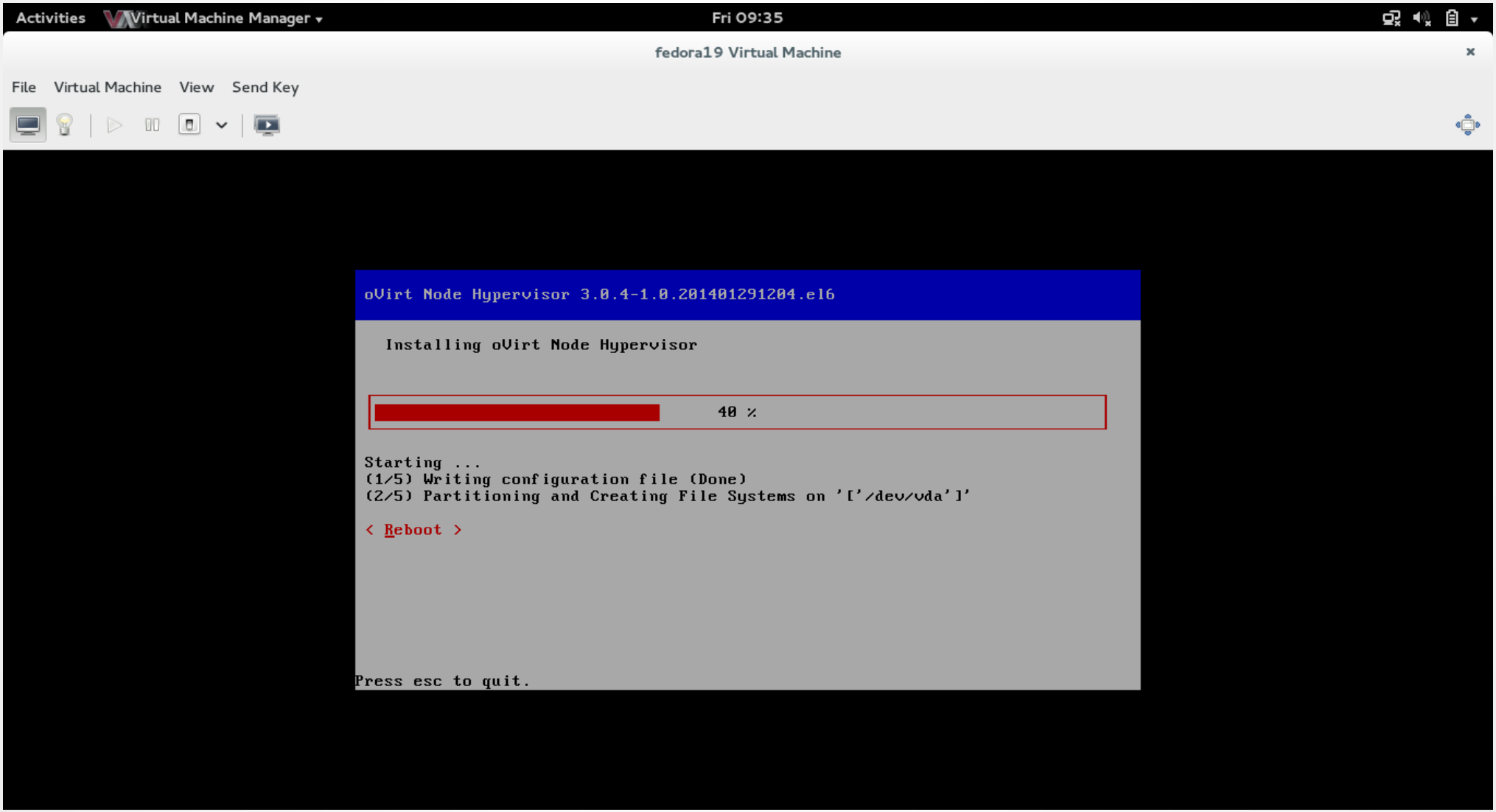

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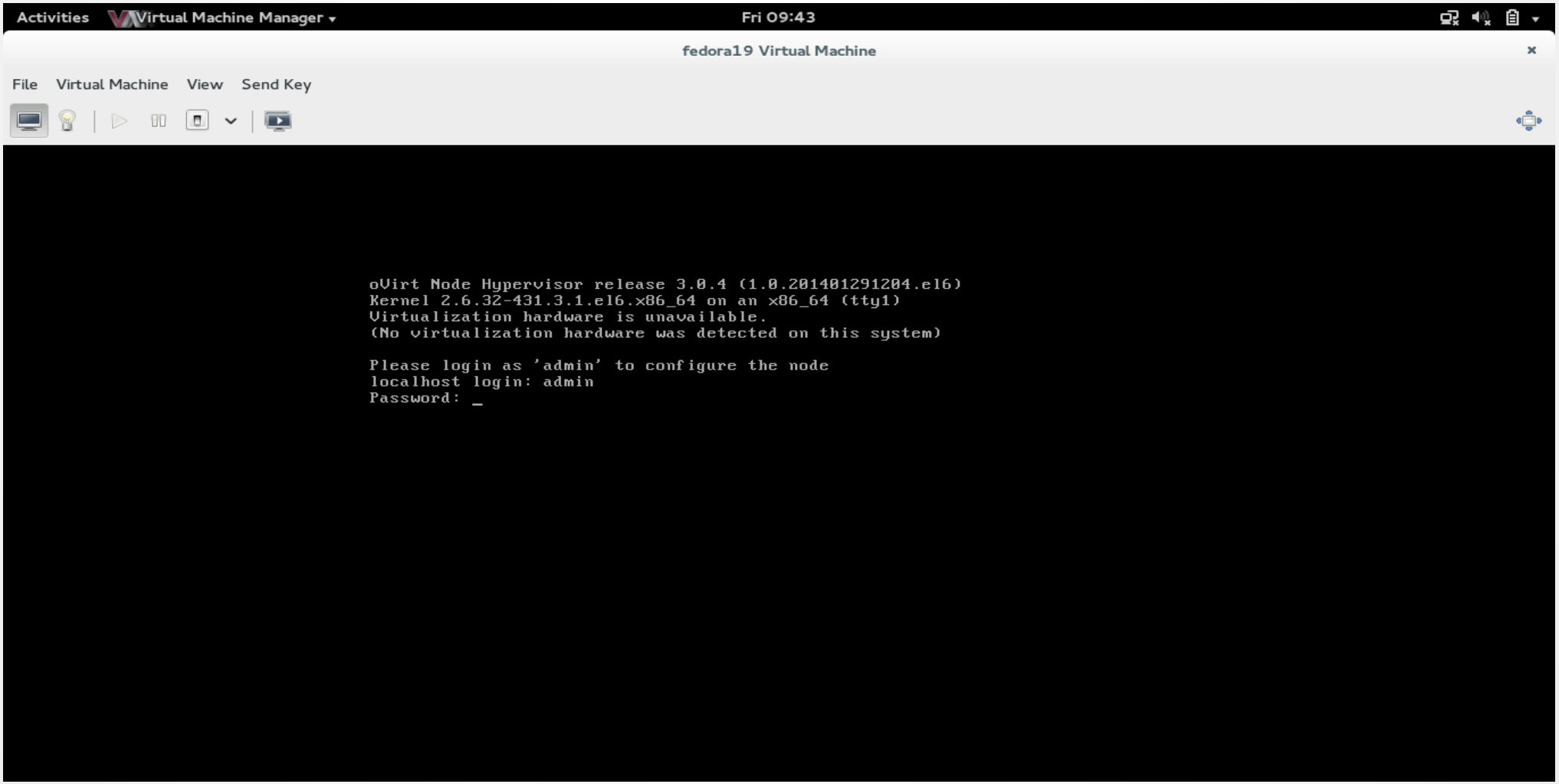

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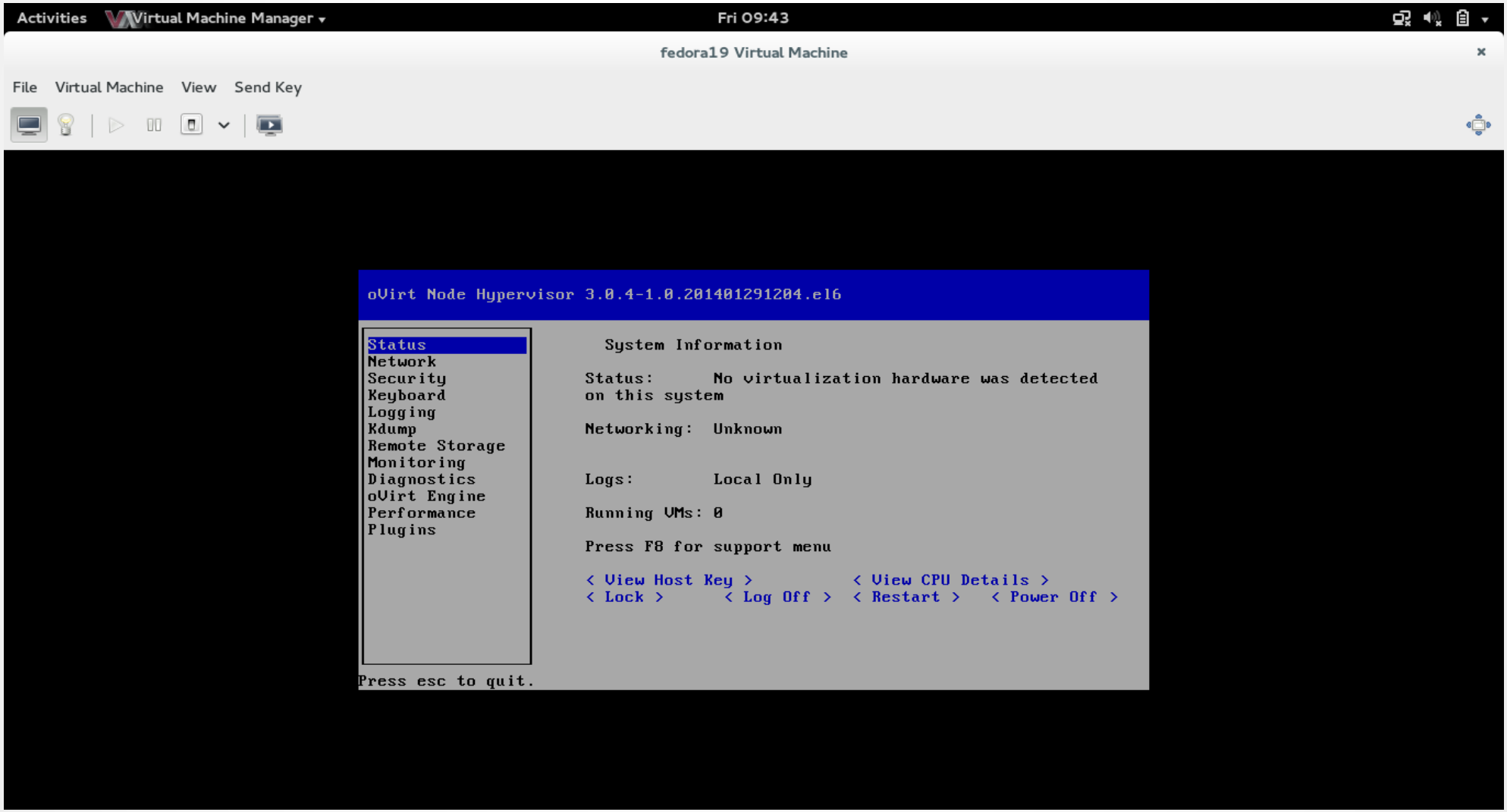

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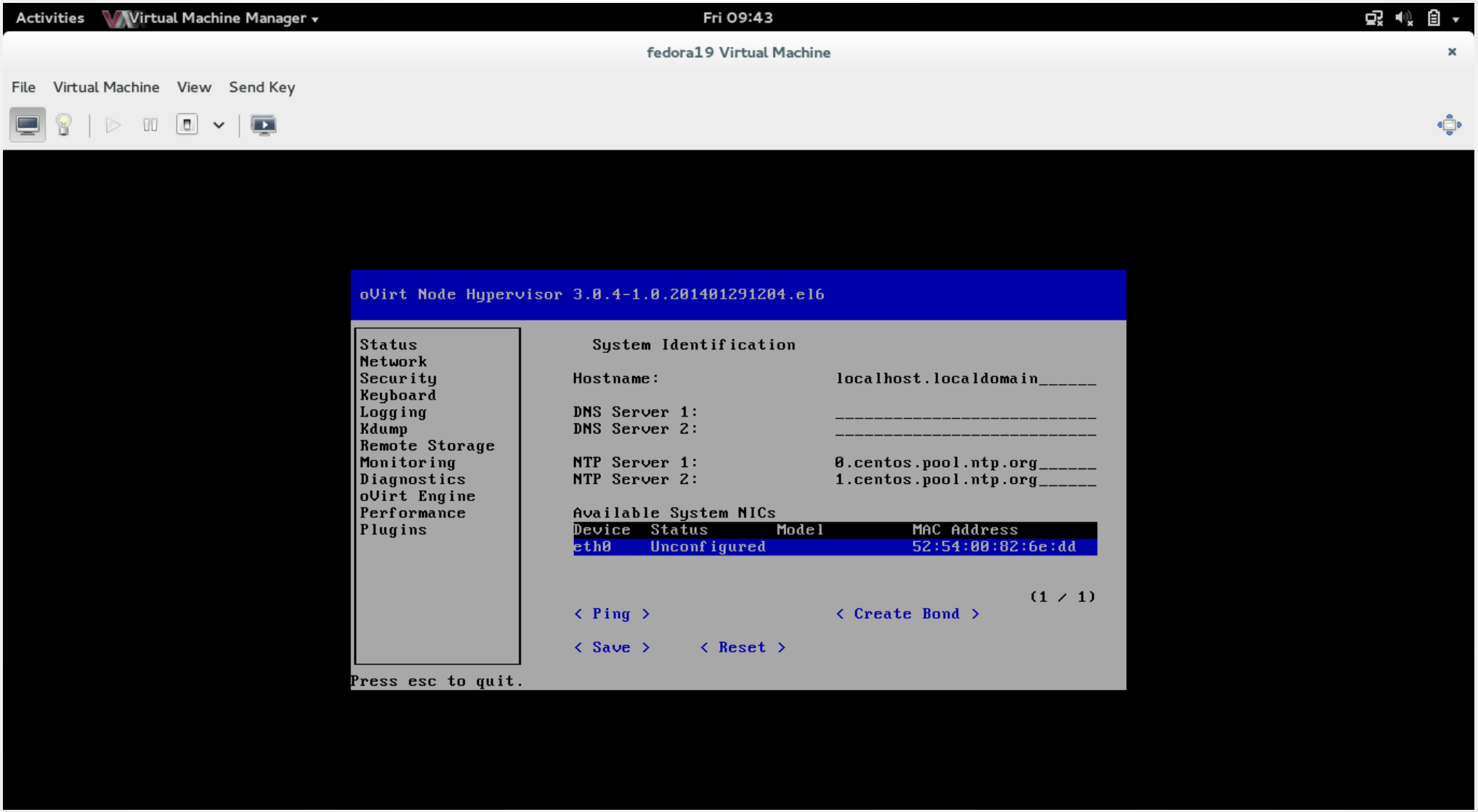

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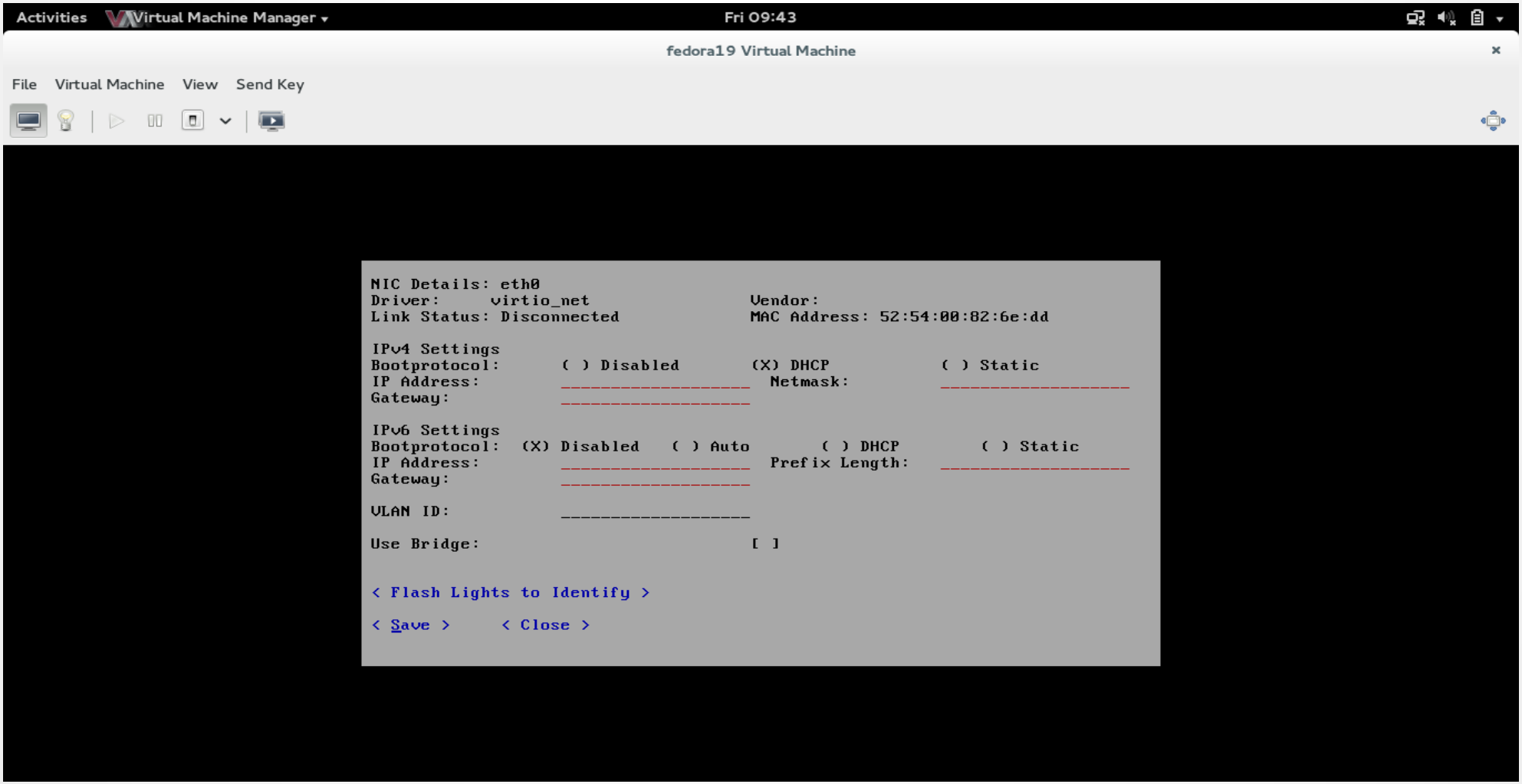

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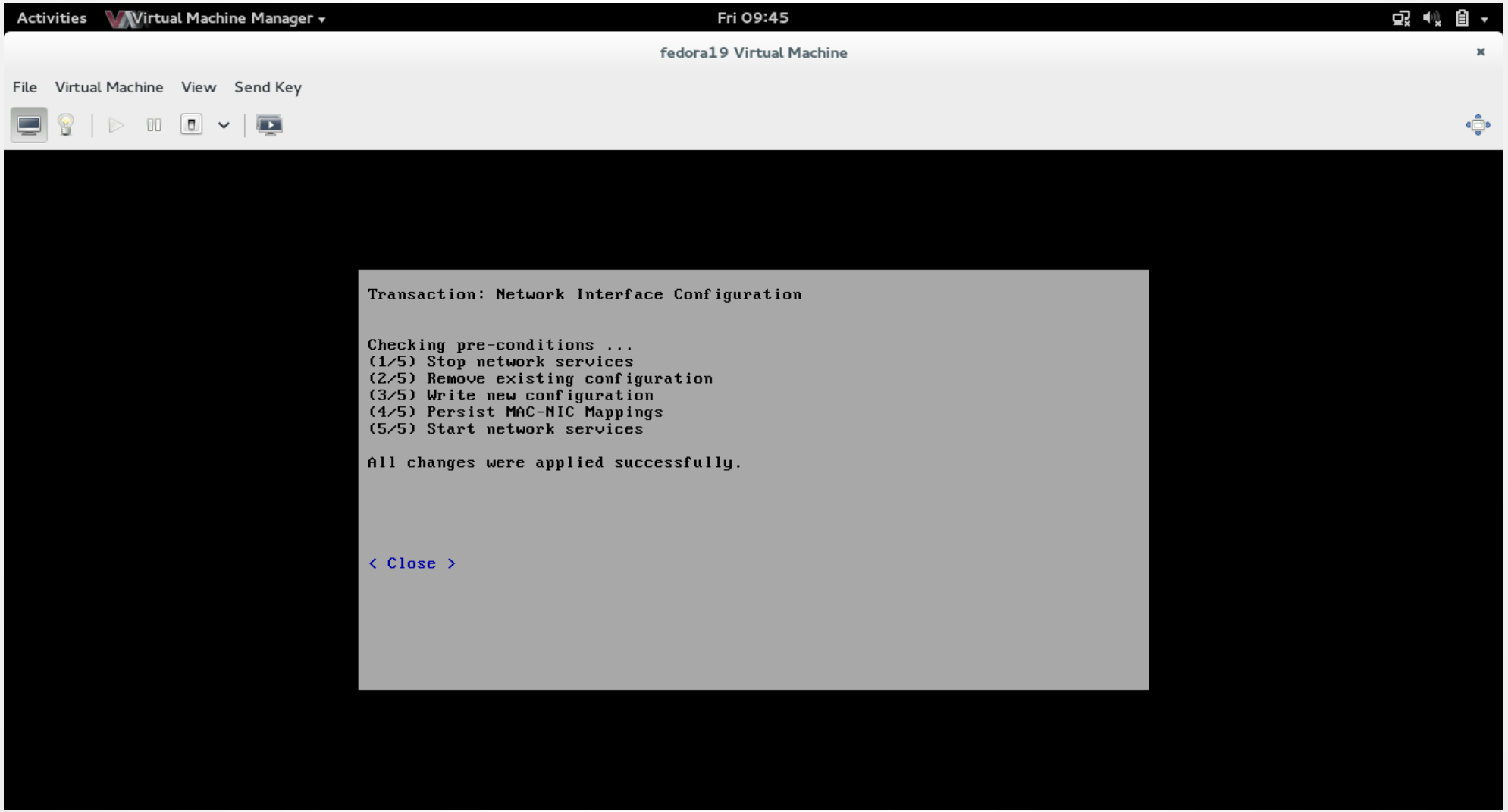

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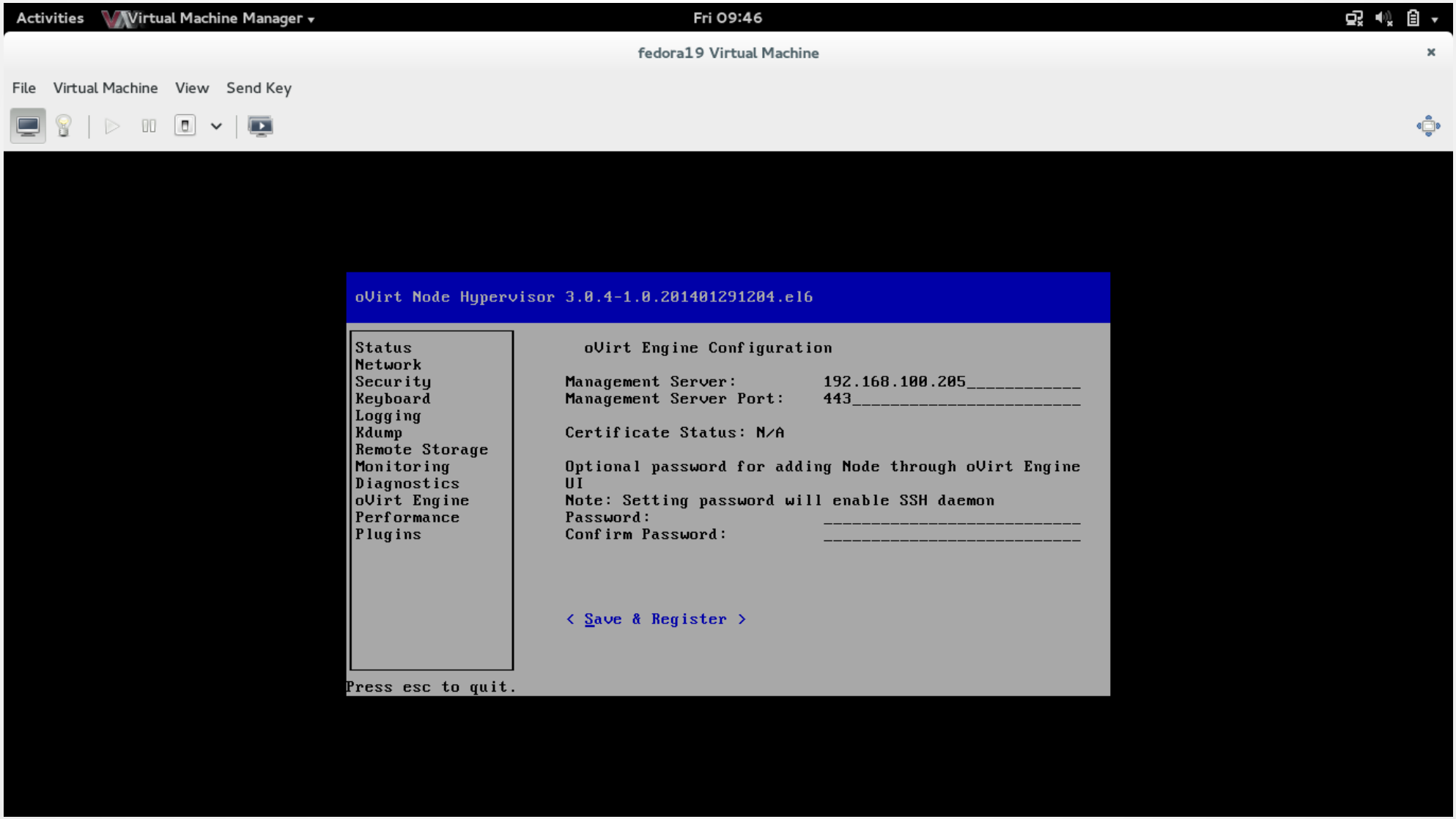

Thanks

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www.ovirt.org

oVirt