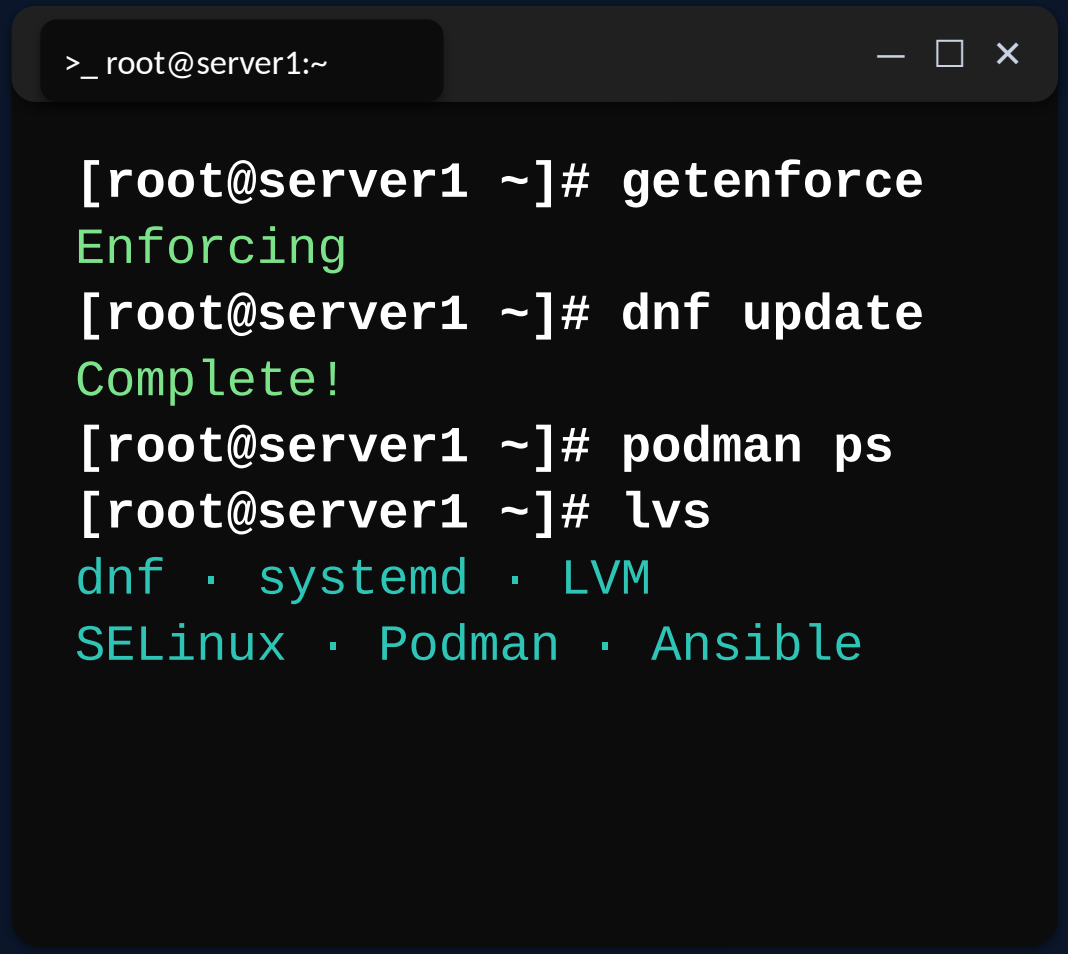


LESSON 2 OF 12

Red Hat Enterprise Linux

RHEL 9 & 10 · Admin · SELinux

Installing RHEL, Registering & the Web Console (Cockpit)

Full Course · RHEL 10.3 & 9.9 (Nov 2026)

What You Will Learn in Lesson 2

- The installation ISOs and the Anaconda installer
- Step by step: language, disks, network, users, software
- Server with GUI vs Server vs Minimal
- Registering with subscription-manager or rhc
- First tasks: updates, hostname, time zone
- The web console: Cockpit on port 9090
- Kickstart: automated installation

Installation Media

ISO	Size	Use it when
DVD (binary) ISO	about 8–12 GB	Normal choice: everything included, works offline
Boot ISO	about 1 GB	Small; packages come from the network after registration
Cloud images (qcow2, AMI)	small	Ready-made VMs and cloud instances
Image mode (bootc) images	container image	Deploy RHEL as a container image (Lesson 12)
USB stick	—	Write the ISO with Fedora Media Writer or dd

The Anaconda Installer

Screen	What to choose in the lab
Language and keyboard	English (United States), or your own
Installation destination	The 30 GB disk, automatic partitioning (LVM)
Network and host name	Enable the NIC; host name server1.lab.local
Time and date	Your time zone; network time on
Software selection	Server (no GUI) for server2; Server with GUI for server1
Root account	Locked or strong password; no root SSH login
User creation	student, with administrator rights (wheel group)

Software Selection

Base environment	What you get	Best for
Server with GUI	GNOME desktop + server tools	Learning, admin workstations
Server	Command line + common server tools	Most real servers
Minimal Install	The smallest working system	Containers hosts, security, cloud
Workstation	Desktop for daily work	Developer laptops
Add-ons	Extra package groups	Add later with dnf group install

Register the System

```
[student@server1 ~]$ sudo rhc connect -u <your-Red-Hat-login>
# or the classic tool:
[student@server1 ~]$ sudo subscription-manager register --username <your-Red-Hat-login>
[student@server1 ~]$ sudo subscription-manager status
[student@server1 ~]$ sudo dnf repolist
repo id                                    repo name
rhel-10-for-x86_64-appstream-rpms          Red Hat Enterprise Linux 10 ... AppStream
rhel-10-for-x86_64-baseos-rpms             Red Hat Enterprise Linux 10 ... BaseOS
```

First Tasks After Installation

```
[student@server1 ~]$ sudo dnf -y update            # install all updates
[student@server1 ~]$ sudo reboot                   # if the kernel was updated

[student@server1 ~]$ sudo hostnamectl set-hostname server1.lab.local
[student@server1 ~]$ timedatectl                   # time zone and NTP status
[student@server1 ~]$ sudo timedatectl set-timezone America/Los_Angeles
[student@server1 ~]$ ip -brief address             # check the IP address
[student@server1 ~]$ sudo systemctl enable --now cockpit.socket
```

The Web Console: Cockpit

Feature	What you can do
Address	https://server1.lab.local:9090 — sign in as student
Overview	CPU, memory, disk and network graphs; updates; reboot
Logs and services	Read the journal; start, stop and enable services
Storage and networking	Disks, LVM, file systems; interfaces, firewall
Accounts and terminal	Create users; a full terminal in the browser
Add-ons	cockpit-podman, cockpit-machines, cockpit-files

Install Cockpit and Add-ons

```
[student@server2 ~]$ sudo dnf install -y cockpit cockpit-podman cockpit-files
[student@server2 ~]$ sudo systemctl enable --now cockpit.socket
[student@server2 ~]$ sudo firewall-cmd --add-service=cockpit --permanent
[student@server2 ~]$ sudo firewall-cmd --reload
[student@server2 ~]$ ss -tlnp | grep 9090
LISTEN 0  4096   *:9090   *:*
# From server1 Cockpit: Add new host > server2.lab.local
```

Kickstart: Automated Installation

```
# /root/anaconda-ks.cfg is created on every installed system
lang en_US.UTF-8
keyboard us
timezone America/Los_Angeles --utc
network --bootproto=static --ip=10.0.0.13 --hostname=server3.lab.local
rootpw --lock
user --name=student --groups=wheel --password=<hash> --iscrypted
autopart --type=lvm
%packages
@^server-product-environment
%end
```

Installing RHEL 9 on server2

Item	Difference from RHEL 10
Installer	Same Anaconda; screens look almost identical
CPU	Runs on older x86-64-v2 CPUs
Desktop	Xorg session still available
Remote GUI	VNC available; RHEL 10 uses RDP
Register and update	Same commands: rhc, subscription-manager, dnf
Repositories	rhel-9-for-x86_64-baseos-rpms and appstream-rpms

Summary and Homework

- Install from the DVD ISO with Anaconda; automatic LVM partitioning
- Create student as an administrator (wheel); lock root
- Register with rhc connect or subscription-manager, then dnf update
- Cockpit: https://host:9090 for browser-based management
- Homework: install RHEL 10 on server1 and RHEL 9 on server2
- Homework: register both, update, enable Cockpit, read anaconda-ks.cfg

Thank You! 🙏

Free videos & PDFs: www.MyWebUniversity.com

Slides for this lesson: MyWebUniversity.com/presentations

YouTube: @MyWebUniversity · @MyWebUniversity-Dari

Wahidullah Lutfy — Founder and Director of IT of MyWebUniversity, and CS teacher

Book: The Direct Path to Linux Ubuntu (Amazon · Barnes & Noble)

Learn it, then pass it on.