

Red Hat System Administration I

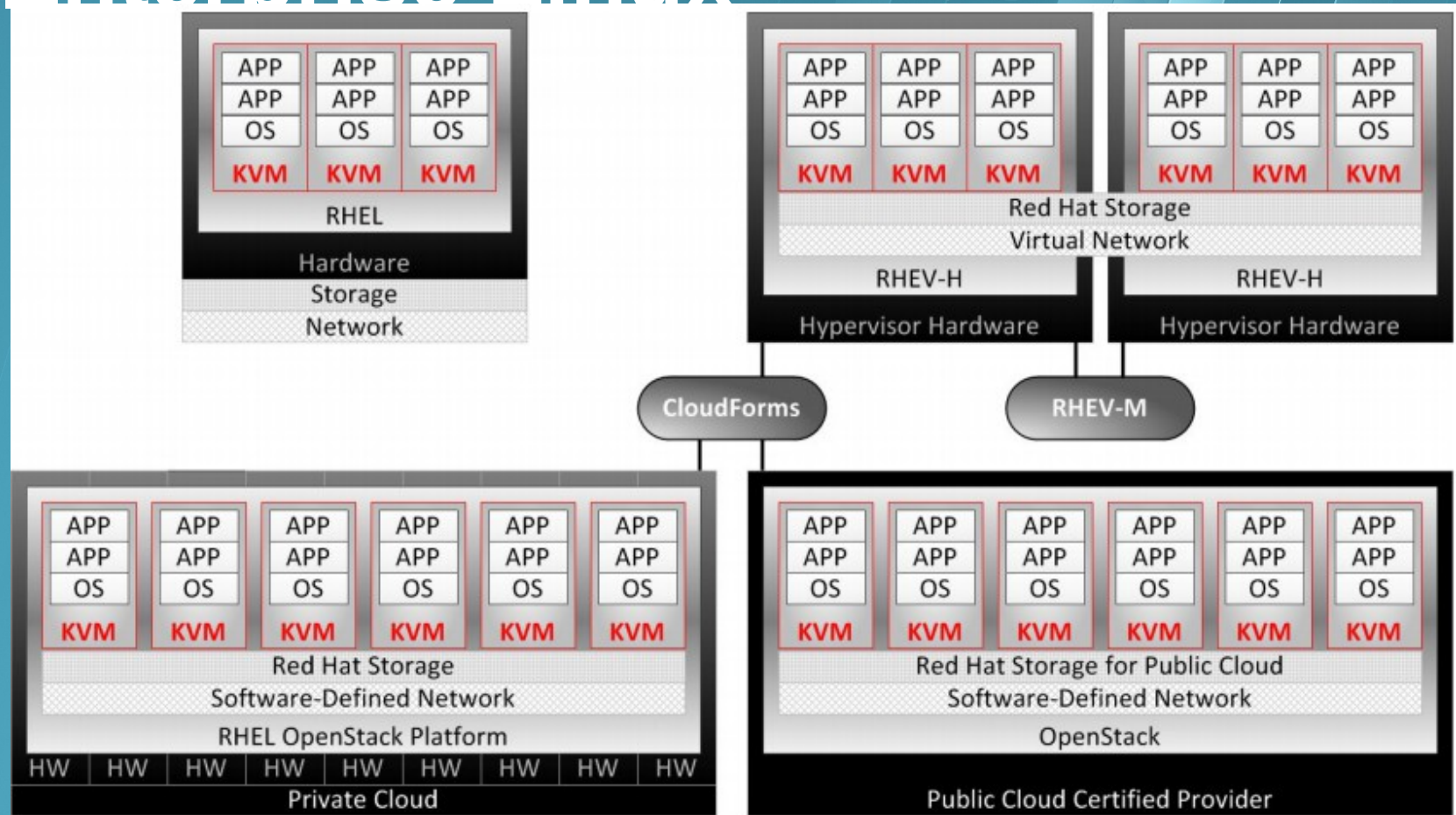
UNIT 15

Using Virtualized Systems

Objectives

- **Install a Red Hat Enterprise Linux system as a host for running virtual machines.**
- **Perform an interactive install of Red Hat Enterprise Linux on a virtual machine.**

System virtualization and Red Hat Enterprise Linux



INSTALL VIRTUAL

- `grep --color -E "vmx|svm" /proc/cpuinfo`
- `yum install qemu-kvm qemu-img`
- `yum install virt-manager libvirt libvirt-python python-virtinst libvirt-client`

Managing virtual machines

- `virsh list`
- `virsh destroy server`
- `virsh list --all`
- `virsh start server`
- `virsh stop server`

more command for virsh

| Purpose | virsh subcommand |
|---|------------------|
| Boot an existing configured virtual machine | start |
| Immediately stop a virtual machine, similar to unplugging it | destroy |
| Delete the configuration for a virtual machine permanently | undefine |
| Use an XML configuration to create and boot a virtual machine | create |
| Use an XML configuration to create a virtual machine | define |
| Gracefully stop and restart a virtual machine | reboot |
| Gracefully stop a virtual machine | shutdown |

how to install virtual machines

New VM

Create a new virtual machine
Step 1 of 5

Enter your virtual machine details

Name:

Connection: localhost (QEMU/KVM)

Choose how you would like to install the operating system

- ☐ Local install media (ISO image or CDROM)
- ☒ Network Install (HTTP, FTP, or NFS)
- ☐ Network Boot (PXE)
- ☐ Import existing disk image

New VM

Create a new virtual machine
Step 2 of 5

Provide the operating system install URL

URL:

▼ URL Options

Kickstart URL:

Kernel options:

☒ Automatically detect operating system based on install media

OS type: Linux

Version: Red Hat Enterprise Linux 7

New VM



Create a new virtual machine

Step 3 of 5

Choose Memory and CPU settings

Memory (RAM): 2048 - + MB

Up to 15636 MB available on the host

CPUs: 1 - +

Up to 6 available

Cancel

Back

Forward

New VM



Create a new virtual machine

Step 4 of 5

☒ Enable storage for this virtual machine

☒ Create a disk image on the computer's hard drive

8.0 - + GB

899.7 Gb available in the default location

☒ Allocate entire disk now

☐ Select managed or other existing storage

Browse...

Cancel

Back

Forward

New VM



Create a new virtual machine

Step 5 of 5

Ready to begin installation of **minimal**

OS: Red Hat Enterprise Linux 7

Install: URL Install Tree

Memory: 2048 MB

CPU(s): 1

Storage: 8.0 GB /var/lib/libvirt/images/minimal.img

☒ Customize configuration before install

Advanced options

Host device enp3s5 (Bridge 'br0') ▾

☒ Set a fixed MAC address

52:54:00:00:00:0C

Virt Type: kvm ▾

Architecture: x86_64 ▾

Cancel

Back

Finish

minimal Virtual Machine



Begin Installation



Cancel



Overview



Processor



Memory



Boot Options



VirtIO Disk 1



NIC :00:00:0C



Input



Display Spice



Sound: default



Console



Channel



Video Default

Basic Details

Name: minimal

UUID: 8304ce6c-4e84-4f17-a17b-4e9dbee35c3

Status: Shutoff

Description:

Hypervisor Details

Hypervisor: kvm

Architecture: x86_64

Emulator: /usr/libexec/qemu-kvm

Operating System

Hostname: unknown

Product name: unknown

Applications

Machine Settings

Security

Add Hardware

Cancel

Apply

That's all