



A

Prepare a System
for the Sample
Exams

Randy Russell, Red Hat's Director of Certification, stated in a 2009 blog entry stated that the Red Hat exams no longer require "a bare-metal installation." In other words, when you sit down for a Red Hat exam today, preinstalled systems will be provided for you. In this appendix, you'll set up a preinstalled system that will work for the sample exams included in the appendixes

If you're just studying for the RHCSA, read the following section. If you're also studying for the RHCE, read the section after that as well.

Basic Sample Exam System Requirements

A test system for RHEL 6 requires more. There is no requirement for a *physical* "bare-metal" installation in the objectives for either the RHCSA or the RHCE exam. However, for the RHCSA, you do need to "configure a physical machine to host virtual guests." As the default RHEL 6 virtual machine solution (KVM) can only be installed from its 64-bit release, you should have 64-bit hardware. (Scientific Linux 6 does include 32-bit packages for KVM.)

You can expect to "install Red Hat Enterprise Linux systems as virtual guests." That's an implicit requirement for a *virtual* "bare-metal" installation. With those objectives in mind, you can set up a test system based on the following requirements:

- Installation on physical 64-bit hardware
 - A dual-boot configuration with another operating system is acceptable.
 - Red Hat does not support Intel Itanium CPUs.
- Sufficient hard drive space
 - 50GB total should be sufficient (though more would be helpful).
 - While you could live with less, figure on 15GB for the physical system.
 - And 15GB each for two or three virtual machine systems should be sufficient.

In most cases, it's not possible to install a virtual machine within a virtual machine. While I did not test such a configuration for this book, virtual machine solutions that run on bare-metal systems reportedly can in turn host other virtual machines. If this is too expensive or complex, just install RHEL 6 on a physical 64-bit system.

Since one of the objectives is to “configure a physical machine to host virtual guests,” you’ll need to set up a 64-bit physical system without installing KVM software. (Of course, you should be prepared to install KVM during an exam.) As discussed in Chapter 1, it’s ideal if you have a genuine release of RHEL 6 for this purpose. Rebuild distributions such as Scientific Linux 6, CentOS 6, or even Oracle Linux 6 should work equally well, as they are based on the publicly available RHEL 6 source code.

However, you should not use Fedora Linux to study for the Red Hat exams. While RHEL 6 is based on Fedora Linux, RHEL 6 has a modestly different look and feel. In some cases, it has a different functionality from the most similar Fedora releases, Fedora 12 and Fedora 13.

With those provisos in mind, you should prepare a 64-bit physical test system per the requirements described in Chapter 1. As suggested in that chapter, you should configure a basic server installation, make sure to select customize now as shown in Figure A-1.

FIGURE A-1

RHEL 6
installation, Basic
Server, Customize
Now

The default installation of Red Hat Enterprise Linux is a basic server install. You can optionally select a different set of software now.

- Basic Server
- Database Server
- Web Server
- Virtual Host
- Desktop
- Software Development Workstation
- Minimal

Please select any additional repositories that you want to use for software installation.

- High Availability
- Load Balancer
- Red Hat Enterprise Linux
- Resilient Storage

You can further customize the software selection now, or after install via the software management application.

Customize later Customize now

4 Appendix A: Prepare a System for the Sample Exams

You may also set up a GUI, as also discussed in Chapter 1. To review, you should select the following package groups during the installation process.

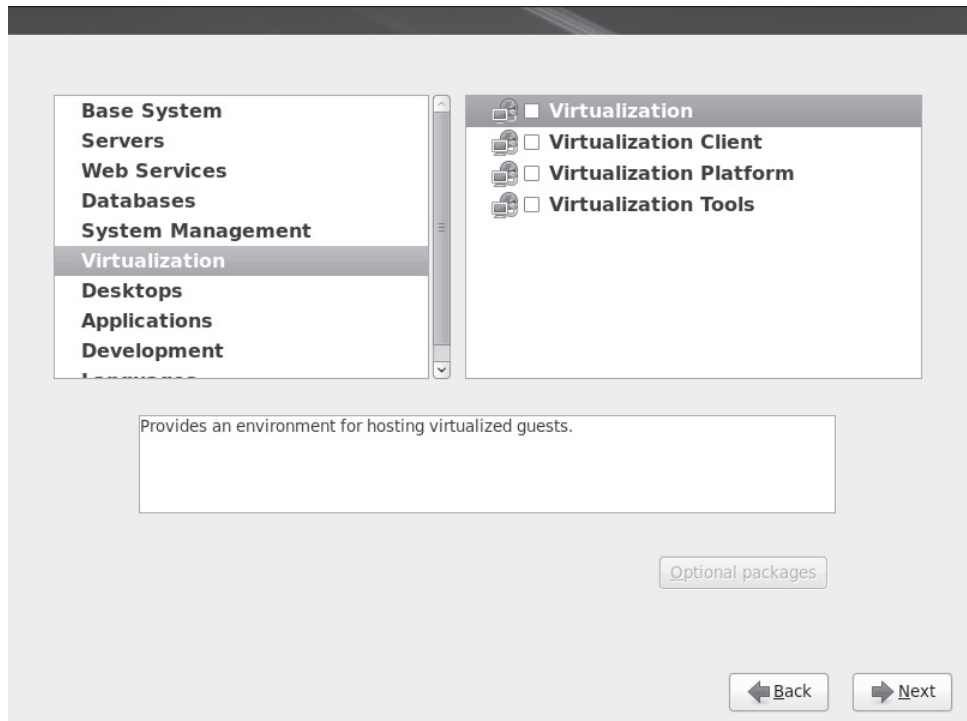
- **Desktops – Desktop** Includes the basic GNOME Desktop Environment.
- **Desktops – Fonts** Installs fonts that improve system readability in the GUI.
- **Desktops – X Window System** Adds the server packages associated with the GUI.
- **Applications – Internet Browser** Includes the Firefox web browser.

But to meet the implied requirements of a test system for the RHCSA, you'll need to make sure that virtual machine software is not installed during the installation process, as shown in Figure A-2.

Once installation is complete, the system will be ready for the RHCSA exam. But there are a couple of more steps required. You'll need to set up an installation repository for the local network. It's okay to do so on the physical host system. One

FIGURE A-2

RHEL 6
installation, no
virtual machine
software



method is described in Chapter 1, Lab 2. Next, download the package for the latest available kernel. If the yum-utils package is available, run the following command:

```
# yumdownloader kernel kernel-firmware
```

Otherwise, use the kernel and kernel-firmware RPM packages available on the CD, in the Chapter7/ subdirectory.

Additional Sample Exam System Requirements for the RHCE

To be ready for the RHCE exam, you'll need to do more. Specifically, you'll want at least two virtual machine systems on the physical host system. Each of those systems should be configured on different networks, as discussed in Chapter 1.

If you're just studying for the RHCE, you can choose to include virtual machine software in the installation process for the physical host system, as shown in Figure A-2. You should set up the virtual systems per the requirements discussed in Chapters 1 and 2. Kickstart files ks.cfg, ks1.cfg, and ks2.cfg are available on the CD, in the Exams/ subdirectory, to help create those virtual systems.