

Network Security v1.0

Virtual Machine Lab Environment - Frequently Asked Questions

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What is Oracle VirtualBox? Where do I get it? and how much does it cost?

Oracle VirtualBox is a free, open source, cross-platform virtualization software used in this course. It can be installed on Windows, Linux, Mac OS X, and Solaris x86 computers. The VirtualBox base software is licensed under the GNU General Public License version 2 and the extension pack is available under the Personal Use and Evaluation license. If you qualify under the terms of this license, VirtualBox is available at no cost.

VirtualBox can be downloaded from Oracle:

<http://www.oracle.com/technetwork/server-storage/virtualbox/downloads/index.html>

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I can't get the virtual machines to work properly in Oracle VirtualBox. What can I do?

If you currently have a version of Oracle VirtualBox that is older than the 5.2.4 version, you need to update to the 5.2.4 version or higher for the virtual machines to work properly.

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What is Security Workstation virtual machine?

The Security Workstation is a custom-built VM based on Arch Linux. This VM is used in a few of the labs in this course.

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After importing and starting the VM, there is no login prompt, only a black screen. What can I do now?

Shut down the VM. Right-click the imported VM and select **Settings** > click **Display**. You can increase the amount of Video Memory and/or change the Graphic Controller and restart the VM.

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Why do I need all that RAM memory?

In this course, there is only one virtual machine. The minimum RAM memory requirement to run Security Workstation virtual machine is 1 GB. Increasing the amount of RAM from the minimum requirement can enhance the performance of the VM.

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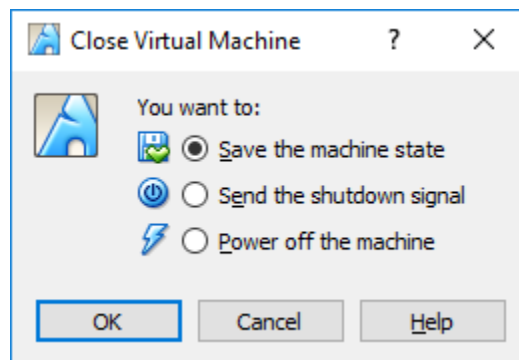
Why are my mouse and keyboard not working outside of the VM?

If your keyboard or mouse does not function outside of the VM, press the CTRL key that is on the right side of the keyboard. This is called the VirtualBox host key. The host key is shown on the lower right-hand corner of the VM window. Other host operating systems may use another key as the host key.

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The labs are too long, and we can't finish it in one class period. What should I do?

Become familiar with the labs before class if possible. The state of the VM can be saved so that you can continue the labs at a later time. To save the VM state, click the **Save the machine state** radio button and click **OK** when closing the VM. The next time you start the virtual machine, you will be able to resume working in the operating system from the saved state.



When you are ready to resume the labs, select the desired VM and click **Start**. The VM will start in the same state as when it was saved.

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How do I remove the virtual machines when I am done with the course?

- 1) Shut down the VM
- 2) Right-click the VM > **Remove**, select **Delete all files**

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How do I replace a file that was accidentally deleted?

- 1) Shut down the VM
- 2) Right-click the VM > **Remove**, select **Delete all files**

- 3) Re-import the VM: **File > Import Appliance**

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I made a change in a VM, and it is not working properly anymore.

- 1) Shut down the VM
- 2) Right-click the VM > **Remove**, select **Delete all files**
- 3) Re-import the VM: **File > Import Appliance**

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The VM screen is black, what do I do now?

When the VM has been idle for some time, the screen may be black. Click anywhere within the VM to display the login screen.

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I copied the command from the PDF and pasted it into the terminal. Why is it not working?

When copying and pasting commands from lab documents, there is a possibility that the formatting and characters from the document may not be compatible with the command line. The solution is to delete and retype the offending characters. The command should then run.

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The command is really long. What can I do to make it easier?

Linux is designed for the command line interface. Several features are included to facilitate entering commands. One of those features is TAB key autocompletion. When typing a command or a directory path, use the TAB key to complete it. Linux will display the possible completions if the typed portion is not unique. Linux will autocomplete the command or path as soon as the typed portion is unique.

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I have mistyped a long command. Do I have to retype again to fix it?

You can use the up arrow to access the commands that were executed earlier in the same terminal window. The command can then be edited.

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I got this message when I tried to SSH into a router: WARNING: REMOTE HOST IDENTIFICATION HAS CHANGED!

You can use the following CLI command to remove a specific user and host from the known_hosts file. The user **sec_admin** and host **192.168.1.1** is used as an example:

```
ssh-keygen -f "/home/sec_admin/.ssh/known_hosts" -R 192.168.1.1
```

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