

Lab 6 Using Templates and Clones

Objective: Deploy a new virtual machine from a template and clone a virtual machine

In this lab, you perform the following tasks:

1. Create a Virtual Machine Template
2. Create Customization Specifications
3. Deploy a Virtual Machine from a Template

In this lab, you use vSphere Client to perform the tasks.

Task 1: Create a Virtual Machine Template

You create a template to securely preserve a virtual machine configuration and easily deploy new virtual machines from the template.

1. If vSphere Client is not active, open your Firefox web browser, select **vSphere Client (SA-VCSA-01)**.
2. Log in with the user name administrator@vsphere.local and the password VMware1!.
3. In vSphere Client, click the **Menu** icon and select **VMs and Templates**.
4. Right-click the Win10-01 virtual machine and select **Power > Shut Down Guest OS**.

NOTE

If your **Shut Down Guest OS** option is dimmed, refresh vSphere Client and try again.

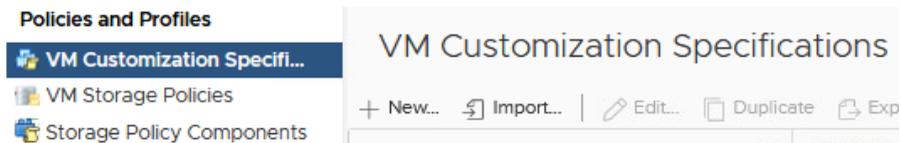
5. Click **Yes** to verify shut down and wait for the virtual machine to power off completely.
6. Right-click the **Win01** virtual machine and select **Template > Convert to Template**.
7. Click **Yes** to verify the conversion.

8. Right-click the **Win01** virtual machine template and select **Move To Folder**.
9. Select **Templates** in the Move to Folder pane and click **OK if the folder not present create it**.
10. Expand the **Templates** folder.
11. Right-click the **Win01** virtual machine template and select **Rename**.
12. Enter **win01-Template** and click **OK**.

Task 2: Create Customization Specifications

You save the guest operating system settings in a customization specification file, which is applied when you clone virtual machines or deploy virtual machines from templates.

1. In vSphere Client, click the **Menu** icon and select **Policies and Profiles**.
2. Under Policies and Profiles, click **VM Customization Specification** and click the **Create a new specification** icon.



The New VM Guest Customization Spec wizard opens.

3. On the Name and target OS page, enter **Win01-CustomSpec** in the Customization Spec Name text box.
4. Verify that sa-vcsa-01.vclass.local shows next to vCenter Server.
5. Under Guest OS, verify that Windows is selected as the Target guest OS.
6. Verify that Generate a new security identity (SID) is selected.
7. Click **Next**.
8. On the Registration Information page, enter **VMware Student** in the Owner name text box, and enter **VMware** in the Owner organization text box.
9. Click **Next**.
10. On the Computer Name page, select **Use the virtual machine name** and click **Next**.
11. On the Enter Windows License page, leave the **product key** text box blank, leave other settings at their defaults and click **Next**.
12. On the Administrator Password page, enter the password **VMware1!** and verify it.
13. Click **Next**.

14. On the Time Zone page, select (**Casablanca - UTC**) from the **Time Zone** drop-down menu and click **Next**.
15. On the Commands to Run Once page, click **Next**.
16. On the Network page, verify that **Use standard network settings for the guest operating system, including enabling DHCP on all network interfaces** is selected and click **Next**.
17. On the Workgroup or Domain page, verify that **Workgroup** is clicked and that the text box shows **WORKGROUP**.
18. Click **Next**.
19. On the Ready to complete page, review the information and click **Finish**.
20. In the Customization Specification Manager pane, verify that Win01-CustomSpec is listed.

Task 3: Deploy a Virtual Machine from a Template

You use templates to rapidly deploy and provision new virtual machines and easily customize the guest operating systems.

1. Click the **Menu** icon and select **VMs and Templates**.
2. Right-click **Win01-Template** and select **New VM from this Template**.
The Deploy From Template wizard opens.
3. On the Select a name and folder page, enter **win02** in the **Virtual machine name** text box.
4. In the Select a location for the virtual machine page, expand **SA-Datacenter** and select the **Lab VMs** folder.
5. Click **Next**.
6. On the Select a compute resource page, expand **SA-Datacenter** and select **sa-esxi-01.vclass.local**.
The Compatibility pane displays the `Compatibility checks succeeded` message.
7. Click **Next**.
8. On the Select storage page, select **iSCSI-Datastore** from the **Storage Compatibility: Compatible** list.
The Compatibility pane displays the `Compatibility checks succeeded` message.
9. From the **Select virtual disk format** drop-down list, select **Thin Provision**.
10. Click **Next**.
11. On the Select clone options page, select the **Customize the operating system** and the **Power on virtual machine after creation** check boxes and click **Next**.

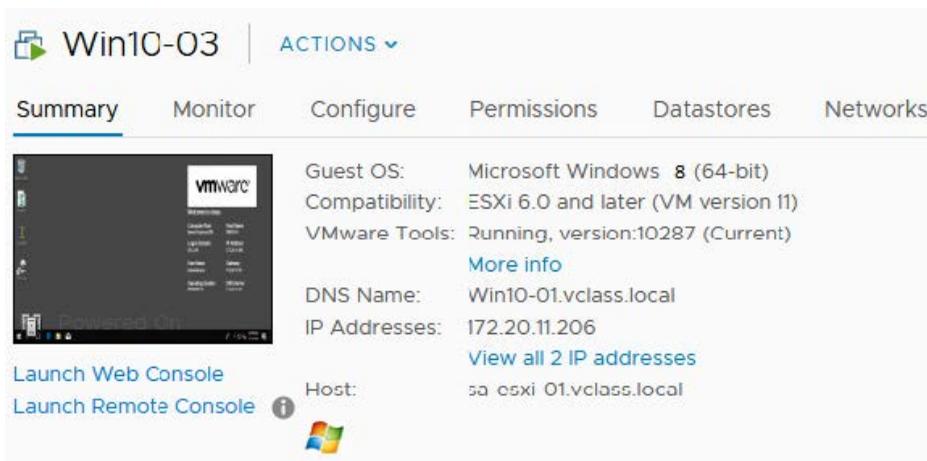
12. On the Customize guest OS page, select **Win01-CustomSpec** and click **Next**.
13. On the Ready to complete page, review the information and click **Finish**.
14. Repeat steps 2 through 13 to create another virtual machine on your second host named **Win03**.

NOTE

If the Compatibility alarm - No guest heartbeats are being received message appears, ignore it. This message does not affect a successful migration.

15. In the Recent Tasks pane, monitor the progress of the two template deployment tasks and wait for their completion.
16. Open a console for each of the newly created virtual machines.
 - a. In the Navigator pane of vSphere Client, right-click the Win03 virtual machine and select **Open Remote Console**.

An alternative to using Remote Console is the Web Console launched from the virtual machine Summary tab.



- b. In the Invalid Security Certificate screen, select the **Always trust this host with this certificate** check box.
 - c. Click **Connect Anyway**.

When the virtual machine console opens, you might see the Windows setup process continuing. It automatically reboots a few times to complete the process.

17. You are logged in as vclass/administrator with the password VMware1!
18. Verify that both IOMETER and CPUBUSY are on the desktop.

19. Verify that VMware Tools is installed by navigating to the Windows system tray at the lower-right corner to show hidden icons and double-click the **VMware Tools** icon.



20. Close the virtual machine console for both virtual machines.
21. Since Remote Console is used, close Remote Console on the task bar and close the empty Firefox tab for each virtual machine.
22. Leave vSphere Client open for the next lab.
23. Inform your instructor that you have completed this lab. If prompted, continue to the next lab.