Replacing a VM using the NETLAB+ Virtual Machine Inventory

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This guide is specific to the VMware ICM 4.1 course currently. Please read the entire document before proceeding with VM replacements.

1 Replacing a VM Using the Virtual Machine Inventory

It is best practice to replace VMs before a class begins its session or after the session has ended. In rare cases, VMs may need to be replaced while the class is in session. If the VM that must be replaced is the **esxi-1** or **vcenter-1**, it is easier to replace the Master VMs and reclone all of the student pods.

Replacing these VMs will require the students to redo most of the labs and the process to individually replace these VMs is not worth the effort. If it becomes necessary to replace the san or vclient VMs, the process MAY be worth the effort to not disrupt the other student VMs. The process to replace individual VMs follows. We recommend that you read the whole document before proceeding.

1.1 General Information

1. The NETLAB+ Administrator must make these changes.
2. All ICM pods must be offline.
3. It is assumed for the purposes of this document that the necessary changes have been made to the VM that is going to replace your Master VM.

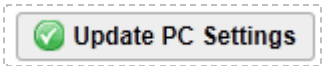
1.2 Removing the old Master VM

1. Login to your NETLAB+ system as the administrator.
2. Select **Equipment Pods**.

3. Choose each student **ICM pod** and select the VM you wish to replace.
4. Choose **Modify PC Settings**.

5. Next to **PC Type**, use the drop down box to select **ABSENT**.

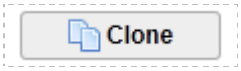
6. Click **Update PC Settings**.



7. Repeat this process for all ICM Pods including the Master Pod(s).
8. Return to the Admin page.
9. Select **Virtual Machine Infrastructure**.

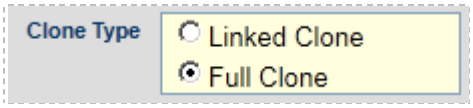
10. Select **Virtual Machine Inventory**.

11. Select the Master VM (not the template) that you wish to replace.
12. Click the **Clone** button.

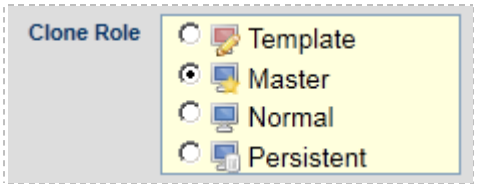


13. For the **Clone Name,** use <previousVMname> Backup.

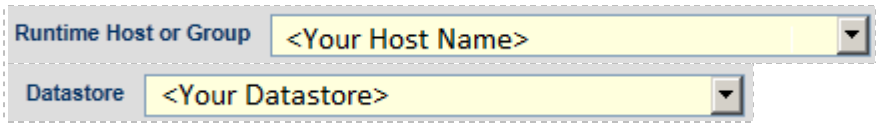
14. For the **Clone Type,** choose **Full Clone**.



15. For the **Clone Role,** choose **Master**.

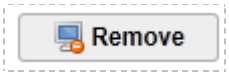


16. Choose the **Runtime Host or Group**, and the **Datastore** you will store the VM on.

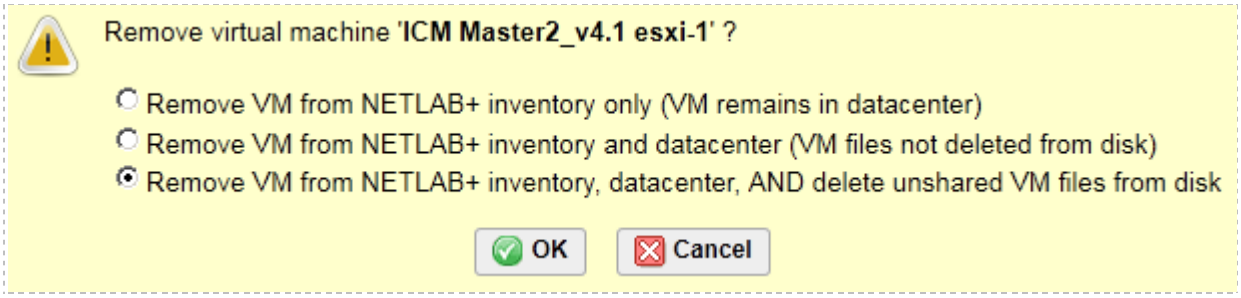


17. Leave **Storage Allocation** as **On Demand**.
18. Click **OK**.

19. When the cloning completes, return to the Virtual Machine Inventory.
20. It is now necessary to select the first student ICM pod's VM that is going to be replaced in the inventory.
21. Write down the Virtual Machine Name, **you will need it later**.
22. Click the **Remove** button.



23. Choose **Remove VM from NETLAB+ inventory, datacenter, AND delete unshared VM files from disk**. If you are presented with an error citing VM dependencies, you missed one of the VMs in the equipment pods and must verify that they are all listed as absent.



24. When presented with the warning that **"This operation cannot be undone!"**, click **OK**.
25. Upon completion, you are returned to the VM inventory. Repeat Steps 22-24 for each student ICM pod.
26. Repeat Steps 22-24 for the Master Pod(s). If you are presented with an error citing VM dependencies, you missed a student ICM Pod VM.
27. When you are done removing the Master Pod VM(s), minimize your browser window.

1.3 Cloning the new Master VM

1. Login to your management client (not NETLAB+).
2. Now that the old Master VM you are replacing is gone, you may clone the updated VM and use the name of the deleted Master VM.
3. When the process completes, take a snapshot and name it GOLDEN_MASTER (or whichever naming convention you used when you set the system up).

1.4 Adding the new Master VM to the Master Pod

1. Logout of your management client and return to the NETLAB+ Administrator Menu.
2. Select **Virtual Machine Infrastructure**.
3. Select **Virtual Machine Inventory**.
4. At the bottom of the page, select **Import Virtual Machines**.

5. If you have multiple datacenters, choose the datacenter where your new Master VM resides.
6. When the NETLAB+ system is done discovering your VMs, find your new Master VM in the list and check the box next to it.
7. Click **Import Selected Virtual Machines**

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8. Choose the correct operating system from the dropdown menu.
9. Choose **Master** in the **Role** drop down box.
10. Choose the **Runtime Host/Group**.
11. Add any comments you have in the text box and click **Import Selected Virtual Machines**.
12. Return to the main Admin page.

13. Select **Equipment Pods**.
14. Select your Master VM Pod.
15. Choose the VM that is currently listed as **ABSENT** which should be the VM you originally planned to replace.
16. Choose **Modify PC Settings**.
17. Next to **PC Type**, use the drop down box to select **Use Virtual Machine Inventory**.
18. Select your new Master VM.
19. Verify that the **Base Snapshot** is listed as the snapshot you took of your new Master VM.
20. Verify that the **Shutdown Preference** is listed as **Graceful Shutdown from Operating System.**

If you are replacing an ESXi VM, you may choose Power Off as the Shutdown Preference because VMware Tools is not compatible with those VMs.

21. Verify that the **Guest Operating System** listed is correct.
22. Click **Update PC Settings**.
23. When the task completes, return to the main Admin page.

1.5 Replacing the Student Pod VMs

1. Select **Virtual Machine Infrastructure**.
2. Select **Virtual Machine Inventory**.
3. Choose your new Master VM.
4. Click on the **Clone** button.
5. For the **Clone name**, enter the name of the first student ICM pod VM that you recorded in Task 1.2, Step 21.
6. For **Clone Type**, choose **Linked Clone**.
7. For **Clone Role**, choose **Persistent**.
8. Choose the **Runtime Host or Group** and **Datastore** that you wish to store the VM on.
9. Repeat Steps 1-8 for the rest of the VMs on the list from Task 1.2, Step 21.
10. When all of the student ICM Pod VMs have been recloned, return to the main Admin page.
11. Select **Equipment Pods**.
12. Select your first student ICM Pod.
13. Select the VM that is listed as **ABSENT**.
14. Click **Modify PC Settings**.
15. For the **PC Type**, choose **Use Virtual Machine Inventory**.
16. Select the **Base Datacenter** where the new VM resides.
17. Select the **Base Virtual Machine** and verify that your **Base Snapshot** appears in the window.

18. Verify the **Shutdown Preference** and **Guest Operating System** are correct.
19. Click **Update PC Settings**.
20. Click **Show Pod**.
21. Click **Previous Page**.
22. Repeat Steps 12-21 for the remainder of the student ICM Pods.

1.6 Final Steps

1. When all pods have been updated, you may bring all of your student pods online.
2. Be sure to leave your Master Pod(s) Offline to prevent them from being scheduled accidentally.