

Install, Configure vCenter Server Appliance

Hands On Lab

Estimated time to complete this lab: 100 minutes

Overview

To complete this lab, you will

- ✓ Import the vCenter Server Appliance onto your ESXi host
- ✓ Perform post-install configuration tasks using vCenter's VAMI interface
- ✓ Log into vCenter with vSphere Client
- ✓ Join vCenter to Active Directory
- ✓ Add your AD Domain to vCenter's Identity Source Roster
- ✓ Assign a user permission to your Windows domain account
- ✓ Update inventory trees
- ✓ Work with VMRC consoles and Web Consoles
- ✓ Create a vCenter Appliance backup job and backup vCenter

Connect to Your Server Kit

Connect to your remote lab environment using either RDP (using the supplied connection string) or ESXLab's web portal with the user name and password provided. Please log in to Windows Server 2012 R2 with the Windows Domain user name (**user#@esxlab.com**) and password as provided by your instructor or by ESXLab.



- On your remote lab access desktop, open **Chrome** and browse to your ESXi host <https://esx1.esxlab.com>
- Log in with user name **root** and password **esxLab.c0m**

For help accessing your lab environment, refer to your ESXLab.com lab release or ask your instructor.

Part 1 – Install the vCenter Server Appliance Stage 1

The vCenter Server Appliance (vCSA) includes installers for Windows, Linux and Mac OS/X. We will use your **Windows 10** desktop VM to get the job done.

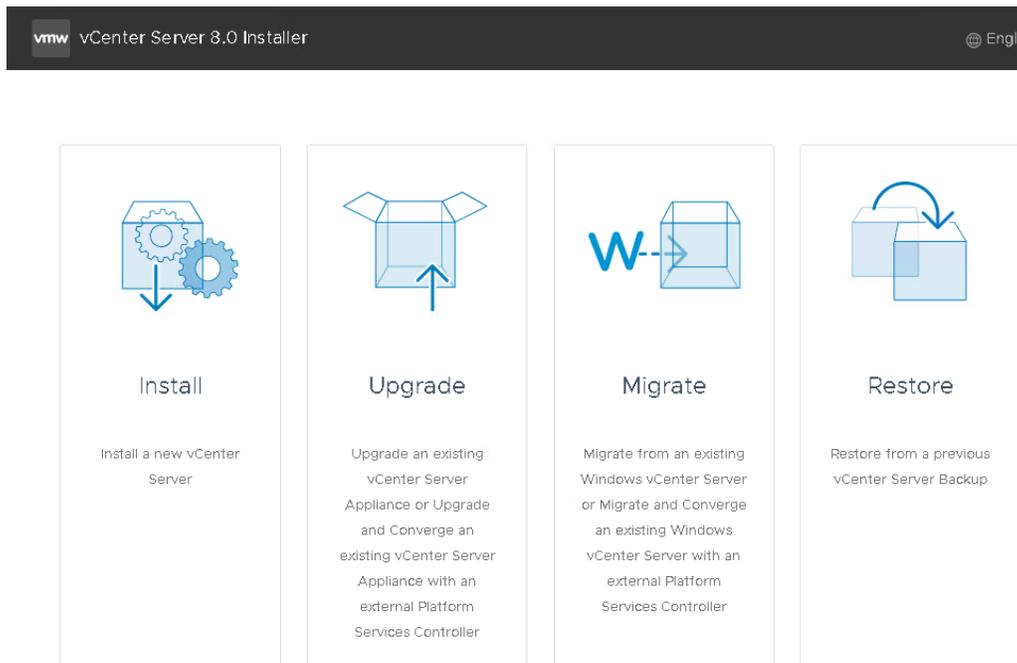
- In *Host Client*, please click the **Virtual Machines** button / link
- Click the **<yourName>-w10-a** link

- If your VM is not powered on, please click the **Power on** link now
- Click the **Edit** link
- Expand the **CD/DVD drive 1** entry
- Click the drop down and select **Datastore ISO file**
- Click the **Browse** button to the right of the *CD/DVD Media* label
- Click the **vSphere8.0-Files** datastore
- Click the **VMware-VCSA-all-8.0.0-20519528.iso** file
- Click **SELECT**
- Back at *Edit Settings*, click the **Connect** check box to the right of the *CD/DVD drive 1* label
- Click **SAVE**
- Please open a console on your **<yourName>-w10-a** VM
- Log in as **Administrator** with password **esxLab.c0m**
- Increase the size of your VM's console window by grabbing and dragging corners of the console. You want the console to occupy a large portion of your remote lab screen
- Open **File Explorer**
- Navigate to **This PC** → **D:**
- Double-click the **vcsa-ui-installer** directory
- Double-click the **win32** directory
- Right-click the **installer** application → **Run as Administrator**

Please wait 15+ sec as the application launches

Install vCenter Server Appliance

VMware ships Windows, Mac and Linux installers for vCSA. You should see:



Install and Configure vCenter Server Appliance

- **Note:** If you cannot see the entire application window, please expand the size of your VM's console window by click/drag any corner of the console window
- Click the **Install** link

This launches the *Install - Stage 1: Deploy vCenter Server* pop up:

1 Introduction	Click NEXT
2 End user license agreement	Check I accept the terms of the license agreement
	Click NEXT
3 vCenter Server deployment target	
ESXi host or vCenter Server	Enter esx1.esxlab.com
HTTPS port	Enter 443

Lab Passwords

In order to provide you with support we **strongly recommend** you use our recommended passwords... If you use your own password and then forget it (happens a lot), we cannot help you because there is no officially supported password reset / recovery tool.

- **DO NOT DEVIATE OR WE CANNOT AND WILL NOT SUPPORT YOU.**



We cannot reset your vCenter or SSO password. IF YOU FORGET YOUR PASSWORD, YOUR ONLY OPTION is to wipe your vCenter Server Appliance and do this lab again. If you forget it later in the course, you will need to redo ALL LABs from this point on when you re-deploy a new vCSA!

User name	Enter root
Password	Enter esxLab.c0m (0 is zero)
	Click NEXT
Certificate Warning	Click YES to accept the untrusted certificate
4 Setup vCenter Server VM	
VM name	Enter vCSA 1
Set root password	Enter esxLab.c0m (0 is zero)
Confirm root password	Enter esxLab.c0m
	Click NEXT
5 Select Deployment Size	
Deployment size	Select Tiny

Storage size	Select Default
	Click NEXT
6 Select datastore	
	Click the esx1-datastore1 volume
	Check Enable Thin Disk Mode



You **MUST** check **Enable Thin Disk Mode**. If you don't, there will not be enough space for your vCenter Appliance, your install will fail and you will have to start again.



You **MUST** enter in network properties **EXACTLY** as specified below. If you deviate, it is likely that your vCenter Appliance will stop on Stage 2 of the installation. It won't be usable or fixable, forcing you to delete your VM and redeploy again from scratch.

Please double-check your work as you go.

Install on a new vSAN cluster...	Deselect this option
	Click NEXT
7 Configure network settings	
Network	Click the drop down and select Production
IP version	Select IPv4
IP assignment	Select static
FQDN	Enter vcsa1.esxlab.com
IP address	Enter 192.168.20.121
Subnet mask or prefix length	Enter 255.255.255.0
Default gateway	Enter 192.168.20.1
Network DNS servers	Enter 192.168.20.2
	Review but do not change all other fields Click NEXT
8 Ready to complete stage 1	Click FINISH

It will take about 20-30+ minutes for this step to complete.

Please be patient and watch the blue progress bar crawl across the screen:

Install - Stage 1: Deploy vCenter Server

80%

Waiting for RPM installation to start. This may take several minutes...

When Stage 1 is done, you will see:

Install - Stage 1: Deploy vCenter Server

You have successfully deployed the vCenter Server.

To proceed with stage 2 of the deployment process, vCenter Server setup, click Continue.

If you exit, you can continue with the vCenter Server setup at any time by logging in to the vCenter Server Management Interface
<https://vcsa1.esxlab.com:5480/>

Part 2 – Install the vCenter Server Appliance Stage 2

- Click **CONTINUE** to proceed on to Stage 2

This launches the *Stage 2 installer...*



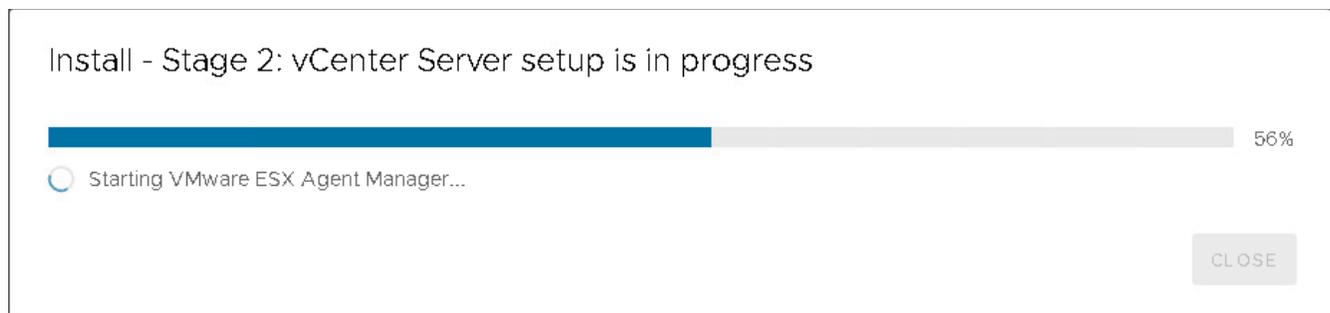
The Stage 2 installer should launch in no more than 30 seconds. If the installer takes longer than this to start, it is highly likely that you have made an error entering the vCenter Appliance’s network properties. If this happens, there is no way to fix the appliance. The only way to continue is to power off your vCenter Appliance, delete it from disk and re-launch the installer starting on page 2 of this lab.

Continue with the *Stage 2 installer* as follows:

1 Introduction	Review the introductory step
	Click NEXT
2 vCenter Server configuration	

Time synchronization mode	Click the drop down and select Synchronize time with the ESXi host
SSH access	Click the drop down and select Activated
	Click NEXT
3 SSO Configuration	Check Create a new SSO domain
Single Sign-On Domain name	Enter esxlab.sso (Note: do not use esxlab.com or your vCSA appliance will not function properly and you will need to redo this lab from scratch!)
Single Sign On password	Enter esxLab.c0m (0 is zero)
Confirm password	Enter esxLab.c0m
	Click NEXT
4 Configure CEIP	Scroll down and check Join the VMware Customer Experience Improvement Program (CEIP)
	Click NEXT
5 Ready to complete	Click FINISH
Warning pop up	Click OK to perform the install

Monitor the installer's progress. You should see:



It can take 30+ minutes for this step to complete.

- Please verify that the Stage 2 installer completes successfully

Install - Stage 2: Complete

 You have successfully setup this vCenter Server.

vCenter Server setup has been completed successfully. Click on the link below to get started. Press close to exit.

vCenter Server Getting Started Page : <https://vcsa1.esxlab.com:443>

CLOSE

- Click **CLOSE**
- Close the **File Explorer** window in your <yourName>-w10-a VM
- In the <yourName>-w10-a console window, click **VMRC** → **Removable Devices** → **CD / DVD drive 1** → **Settings**
- Uncheck **Connected**
- Click **OK**
- Close the <yourName>-w10-a VM console

Part 3 – Review / Update vCSA Settings

vCSA has a number of settings that you can update via the *Virtual Appliance Management Interface* (VAMI). VAMI is a simple web portal built into vCSA

- Open a new **Chrome** browser tab on your W2k12 remote lab access desktop
- Browse to <https://vcsa1.esxlab.com:5480>
- On the *Your connection is not private* security warning...
 - Click **Advanced**
 - Click **Proceed to vcsa1.esxlab.com (unsafe)**
- Log in with user name **root** and password **esxLab.c0m** (0 - zero)
- Review the **Summary** page. Verify that all *Health Status* items are **Good**
Verify also that *Single Sign On* properties are correct
- Click the **Access** link
- Click **EDIT** at the upper right-hand corner
- Click **Activate BASH Shell** and set the *Timeout* value to **20**
- Click **OK** to apply these changes
- Click the **Networking** link. Verify the following properties
Hostname - **vcsa1.esxlab.com**
DNS Servers - **192.168.20.2**
IPv4 Default Gateway - **192.168.20.1**
IP address for **NIC 0** on **vcsa1.esxlab.com** is **192.168.20.121/24 (Static)**
- Click the **Time** link
- Click **EDIT** to the right of *Time zone*
- On the *Edit Time Zone* pop up, click the drop down and select **your time zone**

- Click **SAVE** to dismiss the pop up
- Verify that the *Time Synchronization Mode* is set to **Host** (and correct it if it isn't)
- Click the **Administration** link
(if there is no *Administration* link, please skip the next step)
- Locate the *Password expires* label. If it is set to **No**, please continue to the next step. Otherwise, complete these additional steps
 - Click **EDIT** to the right of *Password expiration settings*
 - Change the *Password expires* value to **No**
 - Click **SAVE**
- Click **root** → **Logout** on the upper right hand corner of the VAMI web page
- Close the **vcsa1.esxlab.com:5480** Chrome browser tab

Part 4 – Join vCenter Appliance to Active Directory

From this point on, we will perform all lab tasks with Chrome and vSphere Client...

- Open a Chrome browser tab and browse to **https://vcsa1.esxlab.com/ui**
- If you see the *Open vmware-cip-launcher* pop up:
 - Check **Always allow vcsa1.esxlab.com to open links of this type in the associated app**
 - Click **Open vmware-cip-launcher**
- Log in to vSphere Client with user name **administrator@esxlab.sso** and password **esxLab.c0m**
- Click **LOGIN**

Please be patient as vSphere Client logs you in for the first time.

vSphere Client Notifications



- **Dismiss** any messages about expiring licenses
- **Dismiss** *New vCenter Server updates are available* messages
DO NOT install updates. Installing updates could take vCenter Server off line for hours and changes to vCenter may interfere with future labs

Join vCenter Server Appliance to Our Active Directory Domain

We need to join our vCSA appliance to Active Directory so that we can configure Single Sign-On to authenticate Active Directory users

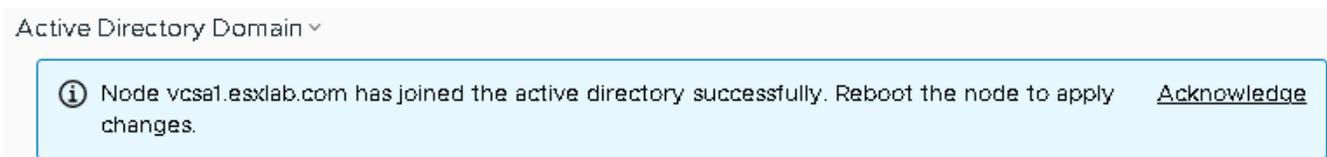


- Click the 3-bar **☰** menu icon to the left of *vSphere Client*
- Click **Administration**
- In the left menu scroll down to *Single Sign On* and click **Configuration**
- Click the *Identity Provider* tab → **Active Directory Domain**
- Click the **JOIN AD** link

This launches the *Join Active Directory Domain* pop up. Complete this wizard as follows:

Domain	Enter esxlab.com
Organizational Unit	Leave blank
User name	Enter the Windows domain account user name assigned to you in the format user#@esxlab.com where # is your user number
Password	Enter your <i>Windows Domain account password</i>
	Click JOIN

You should see:



- We must reboot the vCSA VM for the changes to take effect... click **Acknowledge** to dismiss this message

To reboot the vCenter Server appliance, we need to log back in to the VAMI web interface.

- Please switch back to your <https://vcsa1.esxlab.com:5480> browser tab
If you closed this tab, open a new Chrome browser tab and navigate to <https://vcsa1.esxlab.com:5480>
- Log in as **root** with password **esxLab.c0m**
- Click the **Actions v** menu → **Reboot**
- At the pop up, click **YES**

Lets monitor vCSA 1 as it reboots

- Open a browser tab and navigate to <https://esx1.esxlab.com>
- If you get a security warning, click **Advanced** → **Proceed to esx1.esxlab.com (unsafe)**
- Log in as **root** with password **esxLab.c0m**
- Navigate to the **Virtual Machines** button / link
- Click **vCSA 1** in the roster
- Click **Actions** → **Console** → **Launch remote console**
- If you see the *Open URL* pop up, check **Always allow esx1...**
 - Click the **Open URL: VMware VMRC Protocol** link
- If you get an *Invalid Security Certificate* pop up, check **Always trust this host**
 - Click **Connect Anyway**
 - On the *Connect to server* pop up, login with user name **root** and password

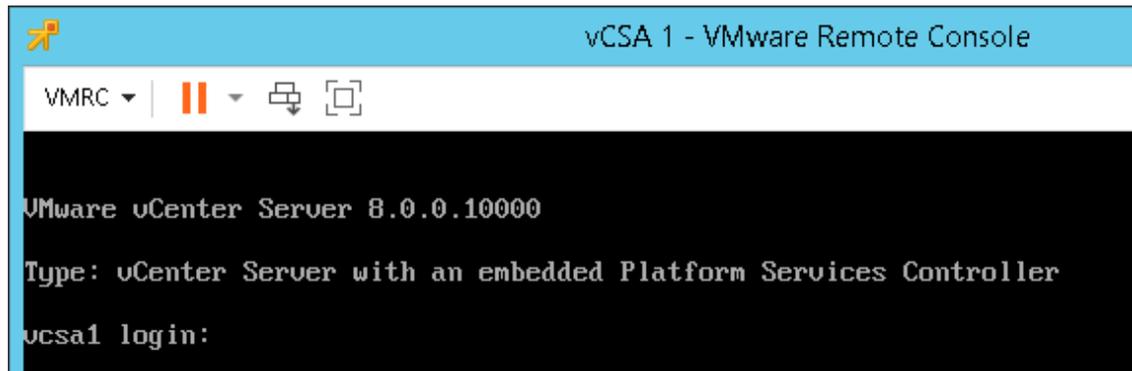
esxLab.c0m

- Click **Remember my credentials**
- Click **Connect**

Watch your vCSA 1 VM shut down and restart.

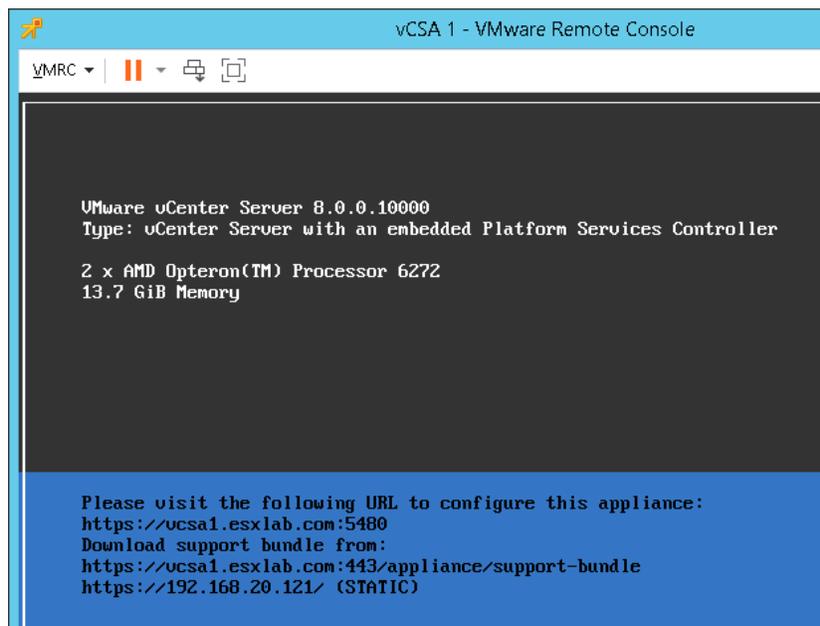
Part 5 – Update Your vCSA Appliance

It may take 10-15 minutes for the vCenter Appliance to reboot. Please be patient. You are ready to go when you get the *vSphere Client* login screen. Note that vCSA is not resource starved... it **really** does take this long for it to get everything booted, configured and in service! Fortunately, this only happens once.



If you see a login prompt, please **click in the window** and hit **Alt-F2**

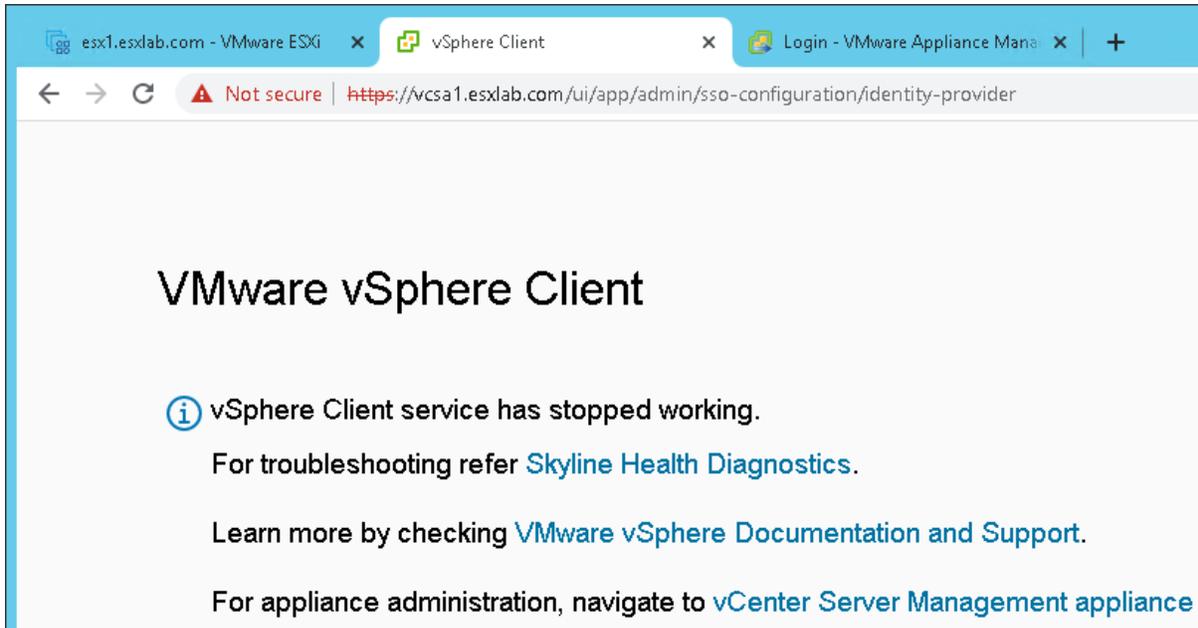
Please continue once you see the vCSA console login screen.



- Hit **Ctrl-Alt** to release the mouse from the console window
- Open a new **Chrome** browser tab
- Try to connect to vCSA by browsing to <https://vcsa1.esxlab.com/ui>

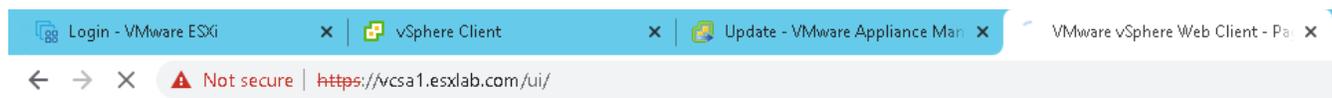
Periodically refreshing the **vSphere Client** browser tab with the  icon or hitting **Ctrl-F5**.

- At first, you may see no response
- Next, you might get a *This site can't be reached* browser error
- Next, you may get an error screen stating that vSphere Client has stopped working



- Every few more minutes, click the browser **Refresh** link or hit **Ctrl-F5**

You might also see (just before vCenter is ready for logins):



The vSphere Client web server is initializing

The vSphere Client web server is still initializing. Please try again shortly.

[VMware vSphere Documentation and Support](#)

When vCenter Server Appliance has completed rebooting and finished launching all tasks / services you should see a login screen. In all, it may take **15+ minutes** before you are presented with a vCenter Appliance login screen!

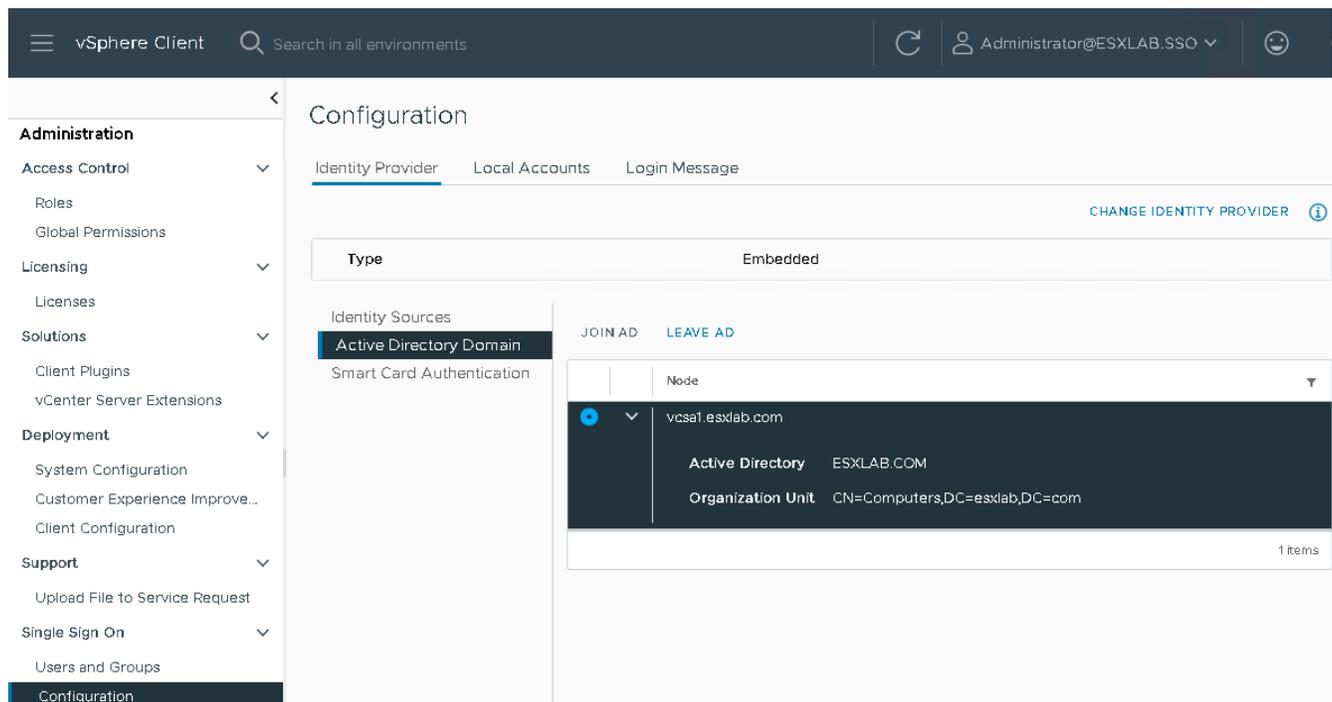


Update SSO

Once you your vCSA VMware vSphere login page:

- Log in with user name **administrator@esxlab.sso** with password **esxLab.c0m**
- Click the menu **☰** icon to the left of the *vSphere Client* label
- Click **Administration**
- Look at the *Single Sign On* header and click **Configuration**
- Under the *Configuration* title, click the **Identity Sources** drop down
- Click **Active Directory Domain**

After a wait of 1-2 minutes, you should see:



Please verify that the vCenter appliance base OS has successfully joined Active Directory. If it has not, please go back to Page 8 of this lab and redo the steps under the heading:

Install and Configure vCenter Server Appliance

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February, 2026

Join Your vCenter Server Appliance to an Active Directory Domain

Continue only once you have successfully joined vCenter to Active Directory

- Click the **Identity Sources** link

Note that only the **esxlab.sso** and the **localos** account databases are currently listed in the *Identity Sources* roster. Lets add the ESXLab.com AD domain to the roster now:

- Click the **ADD** button
- Click the *Identity Source Type* drop down → **Active Directory over LDAP**

You should see the Add Identity Source pop up. Complete this pop up as follows:

Identity Source Type	Select Active Directory over LDAP
Identity source name	Enter esxlab.com
Base distinguished name for users	Enter ou=Training,dc=esxlab,dc=com
Base distinguished name for groups	Enter dc=esxlab,dc=com
Domain name	Enter esxlab.com
Domain alias	Leave blank
Username	Enter your Windows Domain user name E.g.: user1@esxlab.com
Password	Enter your Windows Domain account password
Connect to	Check Specific domain controllers
Primary server URL	Enter ldap://192.168.20.2:389
Secondary server URL	Leave blank
All remaining fields	Leave blank
	Click the ADD button

You should see:

Configuration

Identity Provider Local Accounts Login Message

[CHANGE IDENTITY PROVIDER](#) ⓘ

Type Embedded

Identity Sources

Active Directory Domain
Smart Card Authentication

[ADD](#) [EDIT](#) [SET AS DEFAULT](#) [REMOVE](#)

	Name	Server URL	Type	Domain	Alias
<input type="radio"/>	--	--	System Domain	esxlab.sso	--
<input type="radio"/>	--	--	Local OS (Default)	localos	--
<input type="radio"/>	esxlab.com	ldap://192.168.20.2:389	ActiveDirectory	esxlab.com	--

Note that the newly added Identity Source Active Directory database *esxlab.com* domain is located at the bottom of the *Identity Source* roster.

Update vCenter Server Permissions

Next, we need to create *Administrator* level permission assignments for selected accounts on our local AD domain for our freshly installed vCenter server. This will allow us to log in to vCenter with domain accounts to perform vCenter administration tasks.

Continuing where we left off (above):

- Click the menu ☰ icon → **Inventory** → **Hosts and Clusters** icon
- Click the **Permissions** tab

What we see are the default permission assignments for our vCenter server. Note that all default permission assignments are for the **ESXLAB.SSO** domain. We need to add permission assignments for our actual Active Directory user(s):

vcsa1.esxlab.com | ACTIONS

Summary Monitor Configure **Permissions** Datacenters Hosts & Clusters VMs Datastores Networks

[ADD](#) [EDIT](#) [DELETE](#)

	User/Group	Role	Defined In
<input type="radio"/>	ESXLAB.SSO\Administrator	Administrator	This object and its children
<input type="radio"/>	ESXLAB.SSO\Administrators	Administrator	Global Permission
<input type="radio"/>	ESXLAB.SSO\AutoUpdate	AutoUpdateUser	Global Permission
<input type="radio"/>	ESXLAB.SSO\CAAdmins	Read-only	Global Permission
<input type="radio"/>	ESXLAB.SSO\certificateauthority-c43807a9-ebbb-...	Read-only	Global Permission

- Click **ADD** to add a new permission. This pops up the *Add Permissions* window. If the **ADD** link is greyed out, click any row to activate the **ADD** link.
- In the Add Permission pop up, click the *Domain* drop down and select **ESXLAB.COM**

AD domain.

Do not click esxlab.sso as this is the private SSO domain

- In the *User/Group* field (contains a magnifying glass), type in **user**
- You should see a drop down of all defined accounts that start with *user*
- Select **your correct user account** from the roster
- Verify that the *Role* value is set to **Administrator**
- Check **Propagate to children**
- Click **OK** to complete the permission assignments

Your new permission assignment for **ESXLAB\user#** will appear at the top of the roster. You should see something like:

	User/Group	Role	Defined In
<input checked="" type="radio"/>	ESXLAB.COM\user1	Administrator	
<input type="radio"/>	ESXLAB.SSO\Administrator	Administrator	
<input type="radio"/>	ESXLAB.SSO\Administrators	Administrator	Global Permission
<input type="radio"/>	ESXLAB.SSO\AutoUpdate	AutoUpdateUser	Global Permission
<input type="radio"/>	ESXLAB.SSO\CAAdmins	Read-only	Global Permission
<input type="radio"/>	ESXLAB.SSO\certificateauthority-c43807a9-ebbb-4ab9-aa8f-096833fd9c...	Read-only	Global Permission

Note: In the screen shot above, we assigned the **ESXLAB\user1** user the *Administrator role*.

Test Domain Account Access

Lets verify that our newly created permission assignment works

- Log out of *vSphere Client* by clicking  → **Logout**
- Log in with your assigned **user#@esxlab.com** Windows domain account name and assigned Windows domain account **password**
- You should be logged in successfully
- Dismiss any **License** warnings
- Dismiss any **New vCenter Server update warnings** (without updating vCenter Server)

Part 6 – Create vCenter Inventory Hierarchy

The only item displayed is your vCenter server. We will start by adding a new *Datacenter* to our inventory. Please:

- Click the menu  icon → **Inventory** → **Hosts and Clusters**
- Right-click on your **vcsa1.esxlab.com** vCenter server in the left inventory pane
- Select **New Datacenter** from the menu

A pop up called *New Datacenter* is displayed.

- Please change the datacenter's name to **Production** and click **OK**

Add a folder into the *Production* datacenter so that we can organize the (future) inventory items that will be added.

- Expand inventory and **Right-click** on the *Production* datacenter
- On the pop-up menu, select **New Folder** → **New Host and Cluster Folder...**
- Name the folder **Prod-Servers** and click **OK**

Lets update *VMs and Templates* inventory tree as well:

- **Right-click** the *Production* datacenter → **New Folder** → **New VM and Template Folder...**
- Name the folder **Production VMs** and click **OK**

Import your ESXi Host into vCenter

Before vCenter can manage an ESXi host, that host must be manually added to vCenter's inventory. Please complete these steps:

- Right-click your **Prod-Servers** folder
- Click **Add Host...**

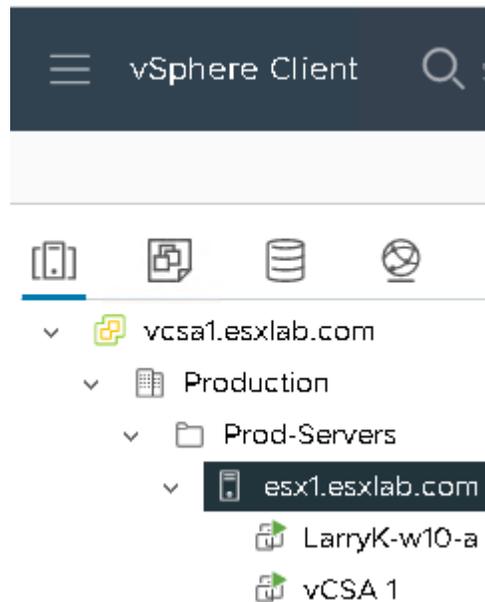
This launches the *Add Host* pop up. Complete this pop up as follows:

1 Name and location	
Host name or IP address	Enter esx1.esxlab.com
	Click NEXT
2. Connection settings	
User Name	root

Password	esxLab.c0m
	Click NEXT
Security Alert	Click YES to accept the host SHA1 thumbprint
3 Host summary	Review and click NEXT
4 Assign license	Review and click NEXT to use evaluation licenses
5 Lockdown mode	Click NEXT to leave <i>Lockdown</i> mode disabled
6 VM location	Expand inventory. Click the Production VMs folder
	Review and click NEXT
7 Ready to complete	Click FINISH

You have successfully added your ESXi host to vCenter.

Review vCenter's inventory...

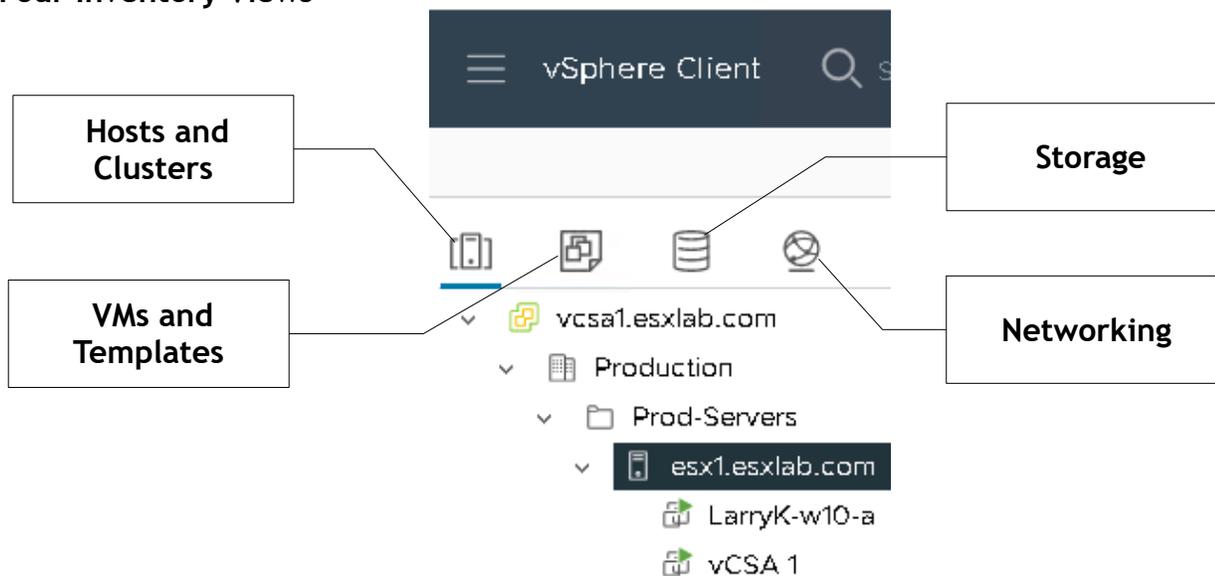


Part 7 – Explore Inventory Using vSphere Client

Now we'll work with vSphere *Client*. Please proceed as follows:

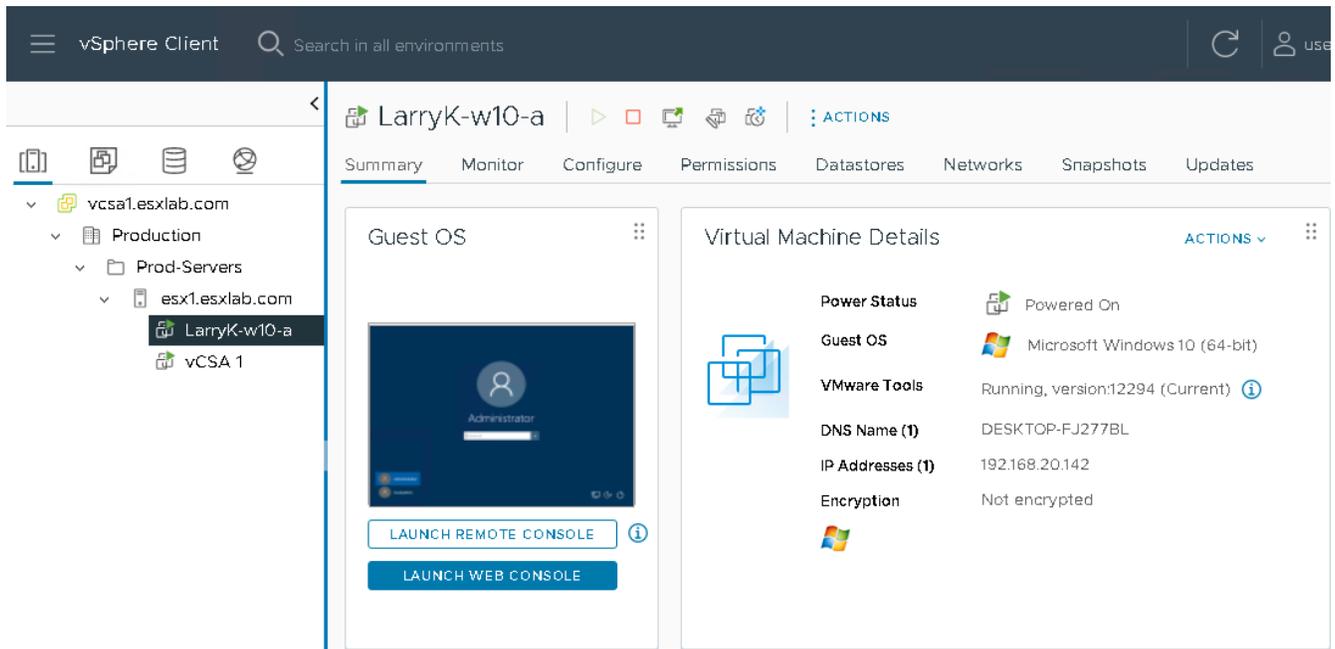
- **Note**, You may see a warning about expiring licenses or vCenter updates...
If you do, please dismiss them
- Click **Menu** → **Hosts and Clusters**

Four Inventory Views



These are the same four inventory views as presented in the legacy *vSphere C# Client* and in legacy *vSphere Web Client*.

- Under *Inventory Trees*, click the **Hosts and Clusters** icon (see above)
- **Expand the inventory** on the left (clicking right-facing angle brackets so they expand down), until your VMs are displayed
- Click the **<yourName>-w10-a** VM.
- Click the **Summary** tab
- In the **Summary** tab is a *VM Console* thumbnail image (as per the screen shot below):



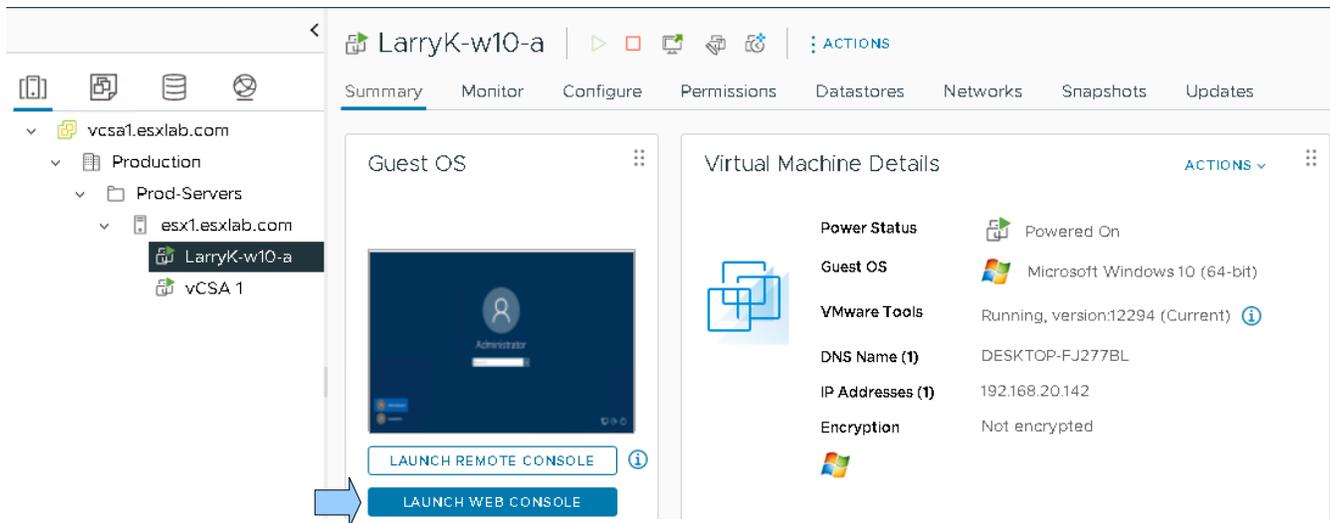
Review the **Summary** tab of the <yourName>-w10-a VM...

- If the right facing **Power-On** triangle is green, click it to power on your VM. Watch the console thumbnail image as your VM powers on
- Once powered, on, check the status of your VM's *VMware Tools* field (as per the screen shot above). It should report (*Running, version-12294 (Current)*)
- Click the **Console Thumbnail** image. You should see the VM's console display in a new browser tab.
Note that the console window is automatically resized to match your browser tab display area
- Close the console browser tab for now. We will come back to it later
- Back at your vSphere Client browser tab, click the **LAUNCH REMOTE CONSOLE** link under the console thumbnail
- You should see an *Open VMware Remote Console* pop up
 - Check **Always allow vcsa1.esxlab.com to open links...**
 - Click the **Open VMware Remote Console** button
- Switch to the new VMRC console window
 - Check **Always trust this host...**
 - Click **Connect Anyway**

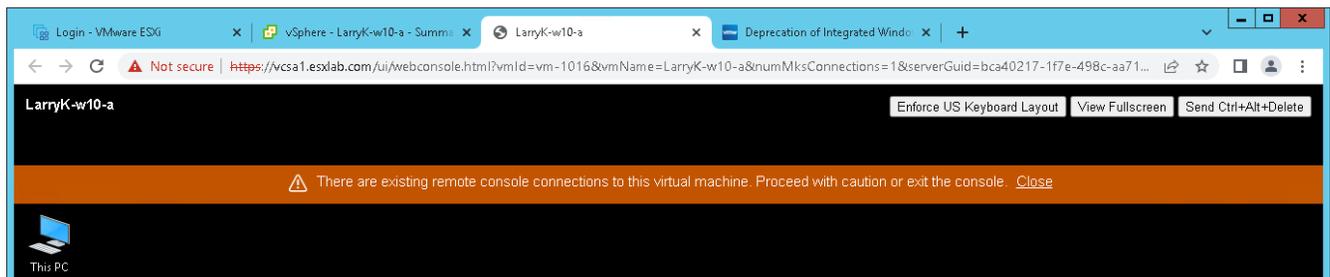
VMware Web Console

vCenter provides a 100% web console for your VMs. Lets test it now:

- Switch back to the **vCenter Server** tab
- Click the **LAUNCH WEB CONSOLE** link located at the bottom right of your VM's console thumbnail image



You should see a new tab open. The top of the VM console window should look like:



Note the warning that we now have 2 console windows open on this VM. The first is the VMware Remote Console window and the second is our Web Console

- If not already logged in, log in as **Administrator** with password **esxLab.c0m**
- Try to position both consoles so you can see both of them (while overlapping)

Note that when you move the mouse in one console, it moves in the second

Note: The Web Console is HTML 5 based and does not require a separate application to run. The VMware Remote Console (VMRC) application is a separate executable that must be downloaded from VMware's download site and installed (we did that in the Virtual Machines Lab) before it can be used. There are VMRC applications for Windows, Linux and Mac.

- Please interact with the VM using the Web console. Note that you can see the console update in the VMRC application (because both are windows onto the same Console 0 of the VM)

- Close the **Web Console browser** tab when you are done with Web Console
Note that the warning bar that there are *existing remote console connections* clears. This warning is in place to let you know when someone else has a console window open to a VM you are using

Please take some time to explore vCenter:

- Click the menu  icon → **Home** link to review vCenter’s home page
- Click other items under the  menu to explore other vCenter functions
Please do not change anything!

When you are done, please log out of vCenter Server:

- Click the **user#@esxlab.com** in the vSphere Client → **Logout**
- Close any VMware Remote Console application windows that you have open
- If you like, close the *vCenter Server* browser tab

Part 8 – Perform a vCenter Backup (Optional)

In this lab step, we will log in to the vCenter VAMI portal and perform a vCenter Server Appliance backup.

Create an SMB Share

In this step, we’ll create an SMB share on your remote lab access Windows Server 2012 R2 machine to act as a back up repository for vCenter Appliance backups.

- Launch **File Explorer** in your Windows Server 2012 R2 remote lab access desktop
- Navigate to the **C:** directory
- Right-click on the **background** → **New** → **Folder**
- Name the folder **vCSA_Backups**
- Right-click the **Windows** button → **Computer Management**
- Click **Shared Folders**
- Right-click **Shares** → **New Share**

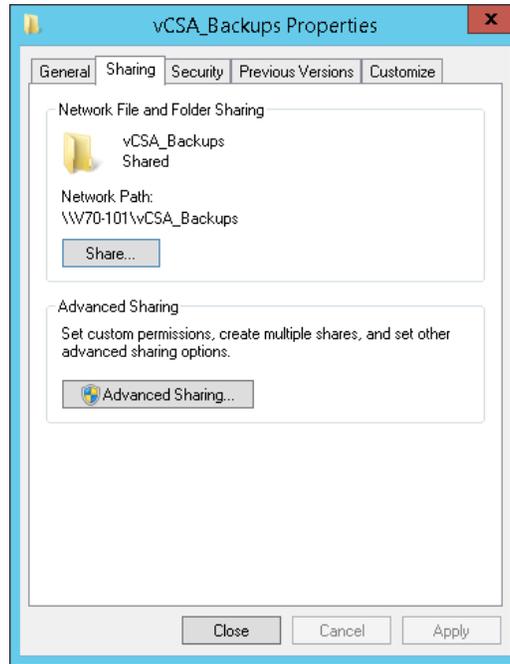
This launches the *Create A Shared Folder Wizard*. Complete this Wizard as follows:

Welcome to the Create a Share...	Click Next >
Folder Path	Browse to C:\vCSA_Backups Note: no blanks in the folder path
	Click OK
	Click Next >
Name, Description, and Settings	

Share Name	Leave at vCSA_Backups Note: no blanks in the share name
Share Path	Review
Description	Enter some verbiage about this share being used to hold vCenter backups
Offline settings	Click Change...
Offline Settings pop up	Click No files or programs from the shared folder are available off line
	Click OK
	Click Next >
Shared Folder Permissions	Click Customize permissions
	Click Custom...
Customize Permissions pop up	Uncheck Read permission for Everyone
	Click the Add... button
Select Users, Computers... pop up	In the text entry field, enter your Windows Domain account login name in the format ESXLab\user#
	Click Check Names Your login name should change to: <i>user# (user#@esxlab.com)</i>
	Click OK to close this pop up
	Click the user# (user#@esxlab.com) user in the <i>Group or user names roster</i>
	Click the Allow check box on the <i>Full Control</i> row
	Click OK to dismiss the <i>Customize Permissions</i> pop up
	Click Finish to dismiss the <i>Create A Shared Folder</i> pop up
Sharing was Successful	Review your new share properties
	Click Finish

- Switch to **File Explorer**
- Click the **vCSA_Backups** folder → **Properties** → **Sharing** tab

You should see:

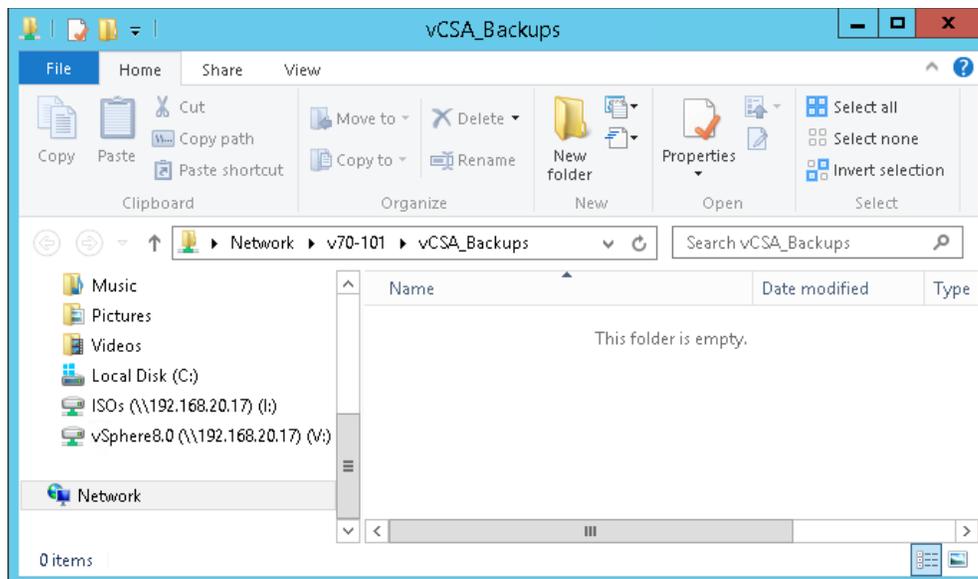


- Click **Close**

Lets test the share...

- Right-click the **Windows button** → **Run**
- In the *Open* field, enter `\\v70-101\vCSA_Backups`
- Click **OK**

You should see *File Explorer* pop up with the (empty) contents of your new share displayed



Create a vCenter Backup Job

Now that we have a target share created, we can create a vCenter appliance back up job.

- Switch to **Chrome**
- Open a **new tab** and browse to **https://vcsa1.esxlab.com:5480**
- Log in as **root** with password **esxLab.c0m**
- Click the **Backup** link at the bottom of the left side menu
Note that you have no pre-defined backup jobs
- To the right of *Backup Schedule*, click the **CONFIGURE** link

This launches the *Create Backup Schedule* pop up. Complete this pop up as follows:

Backup location	Enter smb://192.168.20.101/vCSA_Backups
Backup server credentials	
User name	Enter your assigned Windows account user name in the format user#@esxlab.com
Password	Enter your assigned windows account password
Schedule	Select Daily Set the time to 5 minutes from now
Encrypt backup	Leave blank
Number of backups to retain	Check Retain last ___ backups
	Set the number of backups to retain to 5
Data	Leave at default
	Click CREATE

- On vCenter Appliance's Backup page, expand Backup Schedule.

You should see:

The screenshot shows the vCenter Server Management interface. The top navigation bar includes the VMware logo, 'vCenter Server Management', and the date/time 'Fri 03-31-2023 01:14 PM EDT'. A left sidebar contains navigation links: Summary, Monitor, Access, Networking, Firewall, Time, and Services. The main content area displays a 'Backup Schedule' configuration page. At the top, a light blue informational message states: 'Before taking a backup, a backup server must be set up and configured such that the vCenter server has FTPS, HTTPS, SFTP, FTP, NFS, SMB and HTTP.' Below this, the 'Backup Schedule' section shows a table with the following details:

Status	Activated
Schedule	Daily , 1:15 P.M. Canada/Eastern
Backup Location	smb://192.168.20.101/vCSA_Backups
Backup data	<ul style="list-style-type: none"> • Stats, Events, and Tasks • Inventory and configuration
Number of backups to retain	5

- Now review the *Activity* box
- When your backup starts, you will see a new row under *Activity*
- Click the > icon to expand the back up job details

You should see:

Activity BACKUP NOW						
	Backup Location	Type	Status	Data Transferred	Duration	End Time
▼	smb://192.168.20.101/vCSA...	Scheduled	<div style="width: 95%; background-color: #0070C0; height: 10px;"></div> 95%	362.11 MB	00:01:00	
	Backup Location	smb://192.168.20.101/vCSA_Backups/vCenter/sn_vcsa1.esxlab.com/S_8.0.0.10000_20230331-171532_				
	Version	VC-8.0.0				
	Backup server user name	user4@esxlab.com				
	Start Time	Mar 31, 2023, 01:15:32 PM				
	Message	Backup data transfer is in progress.				

Potential vCenter Backup Error

You may see the following error message:

***** BackupManager encountered an exception. See logs for details...**

This is a known issue with vCenter Appliance under vSphere 8.0 GA. This problem can be fixed by updating your vCenter appliance... but that can take hours so...

PLEASE DO NOT UPDATE VCENTER APPLIANCE!

Continue with the lab...

Now, lets investigate where the backup should have been placed:

- Switch to **File Explorer**
- Navigate to **C:\vCSA_Backups**
- Navigate to the **vCenter** directory
- Navigate to the **<sn>_vcsa1.esxlab.com** directory

This is where your backup should be located. If our backup encountered an error, this folder is empty. Otherwise, you should see files that constitute the vCenter Appliance's backup.

When you are done, please:

- Close **File Explorer**
- Log out of the *vCenter Server Management* interface
- Close the **VAMI browser tab**

Lab Feedback

Did you encounter bug, a typo or other error in this lab? If so, please tell us about it here:

<https://esxlab.aidaform.com/vSphere-lab-feedback-form>

End of Lab

Congratulations - You have successfully completed the
Install and Configure vCenter Server Appliance Lab