

Creating Virtual Machines

Now that your VM folders are loaded with the drive file, its time to create your new VM servers. The first one to make is the WinRegTM server so it can be updated when needed.

Click on the Virtual Machines in the left side navigation bar, third icon from bottom. Click on the Create / Register VM option.

The screenshot shows the VMware ESXi web interface. The browser address bar indicates the URL is `154.27.95.139/ui/#/host/vms`. The page title is `localhost.localdomain - Virtual Machines`. The interface features a navigation bar on the left with icons for various functions. The main content area displays a toolbar with options: `Create / Register VM` (highlighted), `Console`, `Power on`, `Power off`, `Suspend`, `Refresh`, and `Actions`. Below the toolbar is a table header with columns: `Virtual machine`, `Status`, `Used space`, `Guest OS`, `Host name`, `Host CPU`, and `Host me...`. The table content is empty, showing `No virtual machines` and `No items to display`. A `Quick filters...` dropdown is visible. At the bottom, the `Recent tasks` section is shown with columns: `Task`, `Target`, `Initiator`, `Queued`, `Started`, `Result`, and `Completed`. The browser's file manager at the bottom shows a file named `WinReg-flat.vmdk`.

Select the top entry "Create a new virtual machine" and click on Next at the bottom of the window.

The screenshot shows the VMware ESXi web interface. The browser address bar displays "localhost.localdomain - VMware ESXi" and "154.27.95.139/ui/#/host/vms". The page title is "localhost.localdomain - Virtual Machines". The main content area shows a list of virtual machines with a toolbar containing "Create / Register VM", "Console", "Power on", "Power off", "Suspend", "Refresh", and "Actions". A modal window titled "New virtual machine" is open, showing a progress list on the left with five steps: "1 Select creation type", "2 Select a name and guest OS", "3 Select storage", "4 Customize settings", and "5 Ready to complete". The "1 Select creation type" step is active. The main content of the modal is titled "Select creation type" and asks "How would you like to create a Virtual Machine?". Three options are listed in a list box: "Create a new virtual machine" (which is selected), "Deploy a virtual machine from an OVF or OVA file", and "Register an existing virtual machine". To the right of the list box, there is a descriptive text: "This option guides you through creating a new virtual machine. You will be able to customize processors, memory, network connections, and storage. You will need to install a guest operating system after creation." At the bottom of the modal, there are four buttons: "Back", "Next", "Finish", and "Cancel". The "Next" button is highlighted. At the bottom of the browser window, a file named "WinReg-flat.vmdk" is visible in the file manager, with a "Show all" button and a close icon.

Put in the name of the server you are going to create, in this case it would be WinRegTM. The name must match the folder name created when setting up the list of VM folders.

localhost.localdomain - VMware ESXi

localhost.localdomain - Virtual Machines

Create / Register VM | Console | Power on | Power off | Suspend | Refresh | Actions

Search

New virtual machine - WinRegTM (ESXi 6.7 virtual machine)

- 1 Select creation type
- 2 Select a name and guest OS**
- 3 Select storage
- 4 Customize settings
- 5 Ready to complete

Select a name and guest OS

Specify a unique name and OS

Name

Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Compatibility

Guest OS family

Guest OS version

Back Next Finish Cancel

vmware

WinReg-flat.vmdk Show all

Select the drive the VM will be installed into, datastore3. Click on Next.

localhost.localdomain - VMware ESXi x +

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New virtual machine - WinRegTM (ESXi 6.7 virtual machine)

- ✓ 1 Select creation type
- ✓ 2 Select a name and guest OS
- ✓ 3 Select storage
- 4 Customize settings
- 5 Ready to complete

Select storage

Select the storage type and datastore

Standard Persistent Memory

Select a datastore for the virtual machine's configuration files and all of its' virtual disks.

Name	Capacity	Free	Type	Thin pro...	Access
datastore1	439.5 GB	438.09 GB	VMFS6	Supported	Single
datastore2	931.25 GB	929.83 GB	VMFS6	Supported	Single
datastore3	931.25 GB	929.83 GB	VMFS6	Supported	Single

3 items

Back Next Finish Cancel

WinReg-flat.vmdk Show all X

VM Settings - CPU to 3, Memory at 4096, click on the circled X for the Hard disk 1 to remove it. Their default drive is to be replaced with the one you put in place for this VM.

The screenshot shows the VMware ESXi web interface with a 'New virtual machine - WinRegTM (ESXi 6.7 virtual machine)' dialog box open. The dialog is in the 'Customize settings' step, which is highlighted in the left-hand progress bar. The progress bar shows five steps: 1. Select creation type, 2. Select a name and guest OS, 3. Select storage, 4. Customize settings (active), and 5. Ready to complete.

The 'Customize settings' panel is divided into two tabs: 'Virtual Hardware' (selected) and 'VM Options'. Under 'Virtual Hardware', there are several device categories with their respective settings and removal buttons (circled X):

- CPU:** Set to 3.
- Memory:** Set to 4096 MB.
- Hard disk 1:** Set to 40 GB. A circled X is next to this entry, indicating it should be removed.
- SCSI Controller 0:** Set to LSI Logic SAS.
- SATA Controller 0:** (Default setting).
- USB controller 1:** Set to USB 2.0.
- Network Adapter 1:** Set to VM Internal Net, with the 'Connect' checkbox checked.
- CD/DVD Drive 1:** Set to Host device, with the 'Connect' checkbox checked.
- Video Card:** Set to Default settings.

At the bottom of the dialog, there are four buttons: 'Back', 'Next', 'Finish', and 'Cancel'. Below the dialog, the file 'WinReg-flat.vmdk' is visible in the interface, with a 'Show all' button and a close icon (X).

Click on the Add hard disk option.

The screenshot shows the VMware ESXi 6.7 interface for creating a new virtual machine. The main window is titled "New virtual machine - WinRegTM (ESXi 6.7 virtual machine)". On the left, a progress list shows five steps: 1. Select creation type, 2. Select a name and guest OS, 3. Select storage, 4. Customize settings (highlighted), and 5. Ready to complete. The "Customize settings" section is active, with a sub-tab for "Virtual Hardware". Below this, there are three buttons: "Add hard disk", "Add network adapter", and "Add other device". The "Add hard disk" button is highlighted. The main configuration area lists various hardware components with their settings:

Component	Setting	Connect
CPU	3	
Memory	4096 MB	
SCSI Controller 0	LSI Logic SAS	
SATA Controller 0		
USB controller 1	USB 2.0	
Network Adapter 1	VM Internal Net	<input checked="" type="checkbox"/>
CD/DVD Drive 1	Host device	<input checked="" type="checkbox"/>
Video Card	Default settings	

At the bottom of the window, there are four buttons: "Back", "Next", "Finish", and "Cancel". The "Next" button is highlighted. The VMware logo is visible in the bottom left corner of the window. The browser address bar shows "https://154.27.95.139/ui/" and the file name "WinReg-flat.vmdk" is visible in the bottom right corner.

Choose the Existing hard disk entry.

The screenshot shows the VMware ESXi vSphere Client interface. A modal window titled "New virtual machine - WinRegTM (ESXi 6.7 virtual machine)" is open, displaying the "Customize settings" step. On the left, a progress indicator shows five steps: 1. Select creation type, 2. Select a name and guest OS, 3. Select storage, 4. Customize settings (highlighted), and 5. Ready to complete. The main area is titled "Customize settings" and contains a list of hardware components. A dropdown menu is open under "Add hard disk", with "Existing hard disk" selected. The hardware list includes:

- Virtual Hardware (selected) / VM Options
- Add hard disk (dropdown menu open):
 - New standard hard disk (3 disks)
 - Existing hard disk (selected)
 - New persistent memory disk (4096 MB)
 - New raw disk
- Add network adapter
- Add other device
- SATA Controller 0
- USB controller 1 (USB 2.0)
- Network Adapter 1 (VM Internal Net, Connect checked)
- CD/DVD Drive 1 (Host device, Connect checked)
- Video Card (Default settings)

At the bottom of the modal, there are "Back", "Next", "Finish", and "Cancel" buttons. The bottom of the vSphere Client shows a file named "WinReg-flat.vmdk" and a "Show all" button.

Select the datastore3 drive and the WinReg folder for this VM and its drive file.

The screenshot shows the VMware ESXi interface with a 'Datastore browser' window open. The browser is displaying the contents of 'datastore3'. The left sidebar shows a tree view with 'datastore3' selected. The main pane shows a list of folders: '.sdd.sf', 'MySQLRDB03', 'UbuntuTM', 'WhipS03', 'WinReg24', 'WinReg25', 'WinReg26', 'WinReg27', 'WinReg28', 'WinReg29', 'WinReg30', 'WinReg31', and 'WinRegTM'. The 'WinRegTM' folder is selected, and its contents are shown in the right pane: a file named 'WinReg.vmdk' with a size of 60 GB and a creation date of Monday, May 03, 2021. The file is highlighted with a blue bar. At the bottom of the browser window, there are 'Select' and 'Cancel' buttons. Below the browser window, there are 'Back', 'Next', 'Finish', and 'Cancel' buttons. At the very bottom of the image, there is a file explorer bar showing 'WinReg-flat.vmdk' and a 'Show all' button.

The drive will be added. Change the Network adapter to be the VM Internet entry. Click on Next to continue.

The screenshot shows the VMware ESXi vSphere Client interface. A modal window titled "New virtual machine - WinRegTM (ESXi 6.7 virtual machine)" is open, displaying the "Customize settings" step. On the left, a progress indicator shows five steps: 1. Select creation type, 2. Select a name and guest OS, 3. Select storage, 4. Customize settings (highlighted), and 5. Ready to complete. The main area lists hardware components with their settings:

- CPU: 3
- Memory: 4096 MB
- New Hard disk: 60 GB
- SCSI Controller 0: LSI Logic SAS
- SATA Controller 0
- USB controller 1: USB 2.0
- Network Adapter 1: VM Internal Net (selected), with a "Connect" checkbox checked.
- CD/DVD Drive 1: VM Internet (selected), with a "Connect" checkbox checked.
- Video Card: Default settings

At the bottom of the modal, there are buttons for "Back", "Next", "Finish", and "Cancel". The "Next" button is highlighted. The background shows the vSphere Client interface with the URL "154.27.95.139/ui/#/host/vms" and the user "nvcurtice@154.27.95.139".

Now review the selections to make sure you did not miss any setting changes. If all is well click on Finish.

localhost.localdomain - VMware ESXi x +

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localhost.localdomain - Virtual Machines

Create / Register VM | Console | Power on | Power off | Suspend | Refresh | Actions | 🔍 Search

New virtual machine - WinRegTM (ESXi 6.7 virtual machine)

- ✓ 1 Select creation type
- ✓ 2 Select a name and guest OS
- ✓ 3 Select storage
- ✓ 4 Customize settings
- ✓ 5 Ready to complete

Ready to complete

Review your settings selection before finishing the wizard

Name	WinRegTM
Datasore	datastore3
Guest OS name	Microsoft Windows Server 2008 R2 (64-bit)
Compatibility	ESXi 6.7 virtual machine
vCPUs	3
Memory	4096 MB
Network adapters	1
Network adapter 1 network	VM Internet
Network adapter 1 type	E1000
IDE controller 0	IDE 0
IDE controller 1	IDE 1
SCSI controller 0	LSI Logic SAS
SATA controller 0	New SATA controller
Hard disk 1	
Capacity	60GB
Datasore	[datastore3] WinRegTM/

Back Next Finish Cancel

WinReg-flat.vmdk ^ Show all x

The new VM will now show in the list in the offline mode.

The screenshot displays the VMware ESXi vSphere Client interface. The browser address bar shows the URL `154.27.95.139/ui/#/host/vms`. The page title is `localhost.localdomain - Virtual Machines`. The interface includes a navigation pane on the left with icons for Home, Recent, and other views. The main content area shows a table of virtual machines:

Virtual machine	Status	Used space	Guest OS	Host name	Host CPU	Host me...
WinRegTM	Not ready	0 B	Microsoft Window...	Unknown	0 MHz	0 MB

Below the table, the 'Recent tasks' section is visible, showing a task log:

Task	Target	Initiator	Queued	Started	Result	Completed
Create VM	WinRegTM	rwcourtice	05/03/2021 18:04:...	05/03/2021 18:04:...	Completed successfully	05/03/2021 18:04:...

The URL `https://154.27.95.139/ui/#/host/vms/1` is visible in the bottom left corner of the browser window.

Right click on the VM name and select Edit Settings entry.

The screenshot shows the VMware ESXi web interface. At the top, there is a browser window with the address bar showing "154.27.95.139/ui/#/host/vms". The main header of the ESXi interface displays "vmware ESXI" and the user "rwcourtice@154.27.95.139". Below the header, the page title is "localhost.localdomain - Virtual Machines".

The main content area shows a table of virtual machines. One VM, "WinRegTM", is selected. A context menu is open over this VM, listing various actions. The "Edit settings" option is highlighted. Other options include Power, Guest OS, Snapshots, Console, Autostart, Upgrade VM Compatibility, Export, Permissions, Edit notes, Rename, Answer question, Unregister, Delete, Help, and Open in a new window.

Below the VM table, there is a "Recent tasks" section with a table of task history:

Task	Target	Initiator	Queued	Started	Result	Completed
Create VM	WinRegTM	rwcourtice	05/03/2021 18:04:...	05/03/2021 18:04:...	Completed successfully	05/03/2021 18:04:...

The Edit Settings window will open. Click on the Add Network adapter.

The screenshot displays the VMware ESXi management interface. A browser window at the top shows the URL <https://154.27.95.139/ui/#/host/vms>. The main interface shows a list of virtual machines, with 'WinRegTM' selected. An 'Edit settings' dialog box is open for 'WinRegTM (ESXi 6.7 virtual machine)'. The dialog has two tabs: 'Virtual Hardware' (selected) and 'VM Options'. Under 'Virtual Hardware', there are three buttons: 'Add hard disk', 'Add network adapter' (highlighted), and 'Add other device'. Below these buttons is a list of hardware components with their respective settings:

Component	Setting	Unit	Connect
CPU	3		
Memory	4096	MB	
Hard disk 1	60	GB	
SCSI Controller 0	LSI Logic SAS		
SATA Controller 0			
USB controller 1	USB 2.0		
Network Adapter 1	VM Internet		<input checked="" type="checkbox"/>
CD/DVD Drive 1	Host device		<input type="checkbox"/>
Video Card	Default settings		

At the bottom of the dialog are 'Save' and 'Cancel' buttons. Below the dialog, a 'Recent tasks' table is visible:

Task	Target	Initiator	Queued	Started	Result	Completed
Create VM	WinRegTM	rwcurtice	05/03/2021 18:04:...	05/03/2021 18:04:...	Completed successfully	05/03/2021 18:04:...

A small text box at the bottom left of the screenshot contains the URL <https://154.27.95.139/ui/>.

The new entry added will already be set to VM Internal Net option. So click on Save.

The screenshot shows the VMware ESXi web interface. A modal window titled "Edit settings - WinRegTM (ESXi 6.7 virtual machine)" is open, displaying the "VM Options" tab. The "New Network Adapter" is configured with "VM Internal Net" and the "Connect" checkbox is checked. The "Recent tasks" table at the bottom shows a successful "Create VM" task.

Task	Target	Initiator	Queued	Started	Result	Completed
Create VM	WinRegTM	rwcurtice	05/03/2021 18:04:...	05/03/2021 18:04:...	Completed successfully	05/03/2021 18:04:...

Now you can right click on the VM name again hover the mouse pointer over Power, then over Power On option.

The screenshot displays the VMware ESXi web interface. At the top, the browser address bar shows the URL `154.27.95.139/ui/#/host/vms`. The main content area is titled "localhost.localdomain - Virtual Machines" and contains a table of virtual machines. A context menu is open over the VM "WinRegTM", with the "Power" option selected, revealing a sub-menu where "Power on" is highlighted. Other options in the main menu include Guest OS, Snapshots, Console, Autostart, Upgrade VM Compatibility, Export, Edit settings, Permissions, Edit notes, Rename, Answer question, Unregister, Delete, Help, and Open in a new window. The sub-menu also includes Power off, Suspend, and Reset. To the right of the VM table, resource usage is shown: CPU at 0 MHz, MEMORY at 0 B, and STORAGE at 60 GB. At the bottom, the "Recent tasks" section shows a table of completed operations.

Task	Target	Initiator	Queued	Started	Result	Completed
Reconfig VM	WinRegTM	rwcurtice	05/03/2021 18:07:...	05/03/2021 18:07:...	Completed successfully	05/03/2021 18:07:...
Create VM	WinRegTM	rwcurtice	05/03/2021 18:04:...	05/03/2021 18:04:...	Completed successfully	05/03/2021 18:04:...

Use the VMWare Console window to see when its startup has completed to the point you may open Remote Desktop to its IP address to logon to it with the Administrator account.

The screenshot shows the VMware ESXi web interface in a browser window. The address bar displays 'localhost.localdomain - VMware' and 'server04.enchantedgrid.com/ui/#/host/vms'. The interface includes a navigation sidebar on the left and a main content area with a table of virtual machines. A context menu is open over the 'WinReg24' VM, showing options like 'Power', 'Guest OS', 'Snapshots', 'Console', 'Autostart', 'Upgrade VM Compatibility', 'Export', 'Edit settings', 'Permissions', 'Edit notes', 'Rename', 'Answer question', 'Unregister', 'Delete', 'Help', and 'Open in a new window'. A sub-menu for 'Console' is also visible, containing 'Open browser console', 'Open console in new window', 'Open console in new tab', 'Launch remote console', and 'Download VMRC'.

Virtual machine	Status	Used space	Guest OS	Host name	Host CPU	Host me...
WinRegTM	✓ N...	60 GB	Microsoft Window...	Unknown	0 MHz	0 MB
WinReg24	✓ N...	64.11 GB	Microsoft Window...	WinReg24	510 MHz	4.05 GB
WinReg24	N...	64.11 GB	Microsoft Window...	WinRegTemplate	5.4 GHz	4.05 GB
WinReg26	N...	64.11 GB	Microsoft Window...	WinReg26	472 MHz	4.06 GB
WinReg27	N...	64.11 GB	Microsoft Window...	WinReg27	672 MHz	4.05 GB
WinReg28	N...	64.11 GB	Microsoft Window...	WinReg28	550 MHz	4.06 GB
WinReg29	N...	64.11 GB	Microsoft Window...	WinReg29	642 MHz	4.06 GB
WinReg30	N...	64.11 GB	Microsoft Window...	WinReg30	1.2 GHz	4.06 GB
WinReg31	N...	64.11 GB	Microsoft Window...	WinReg31	1.2 GHz	4.06 GB

9 items

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Completed
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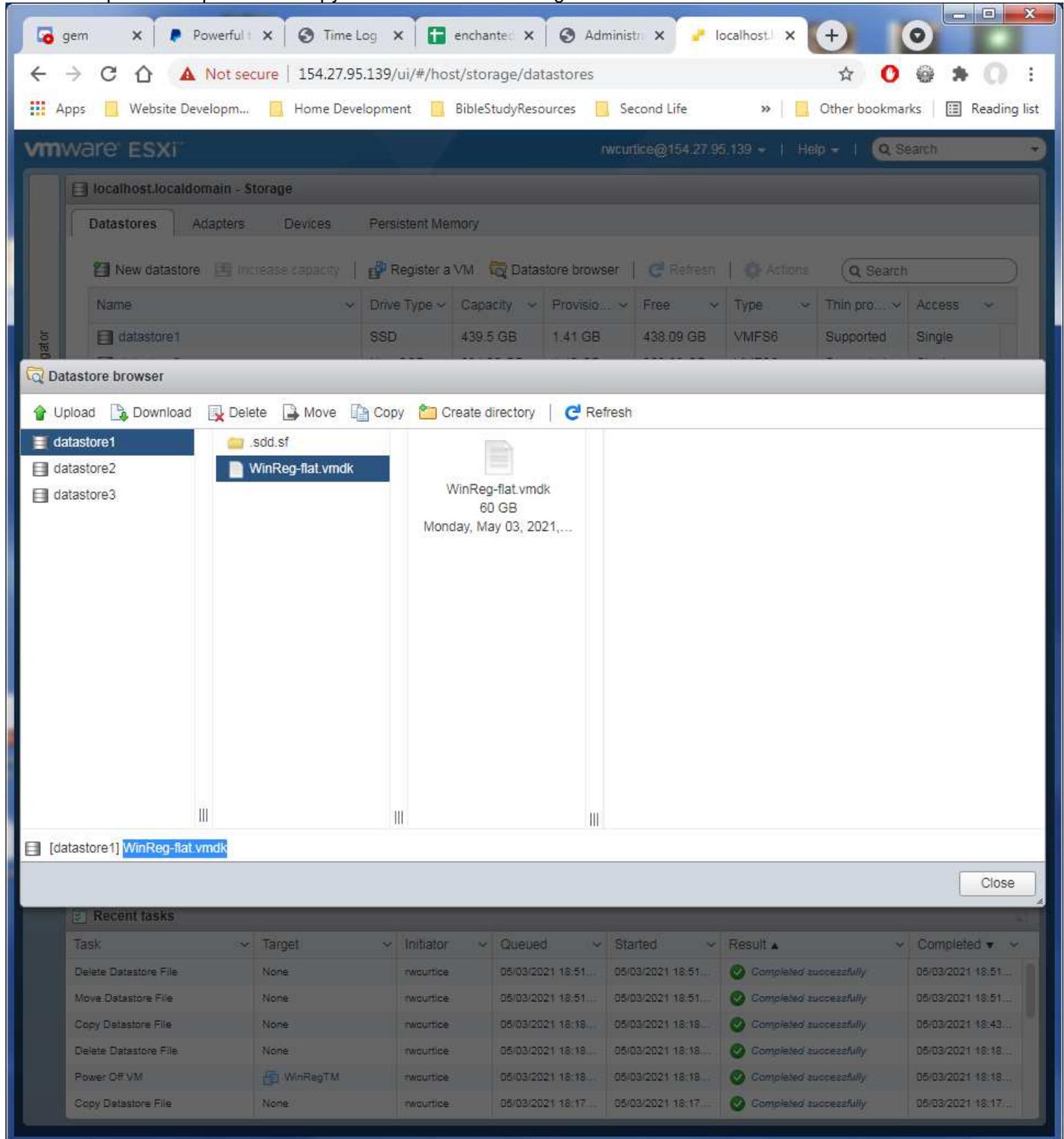
Test that the VM has internet and internal networking connections working. If any Windows Updates are needed, they may be applied. Do not install the Windows Malware program, right click on it whenever it shows up and hide it. Its a useless process that will search and remove any non-Windows programs that it deems are a problem regardless of any facts. Once the VM has been verified in good order, shut it down so it closes and powers off. The Microsoft Security Essentials program is a much better program if any such security is needed. The servers used here should only be running the grid simulators and not used for anything else that will lag them.

If any adjustments were made or updates applied to WinRegTM, copy its WinReg-flat.vmdk to the SSD drive root folder to use in creating the rest of the VMs on the server.

Create the WinReg## Drive Files:

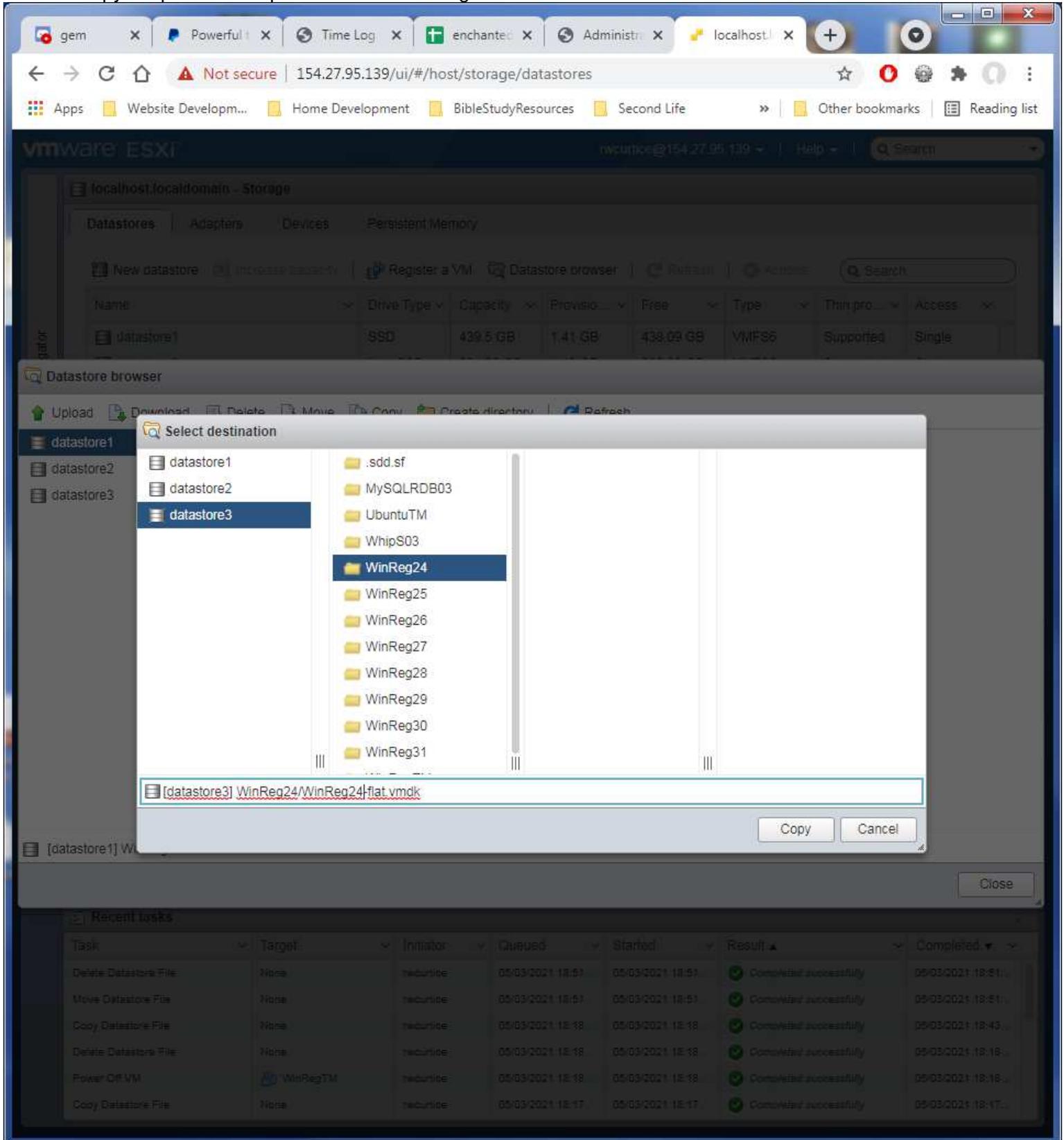
Copying the WinReg-flat.vmdk to each WinReg##-flat.vmdk takes an extra step.

The one important step is this to copy the name of the WinReg-flat.vmdk in the lower left line as shown:



Select the Copy option, then choose the drive where the VM folder are located and the next WinReg## folder.

Past the file WinReg-flat.vmdk name in the lower left line and put in the matching folder name number as shown. Then click on Copy. Repeat this step for all of the WinReg## folders.



Next Chapter: WinReg Virtual Machine Setup.