
Importing Existing Virtual Machines into yCenter

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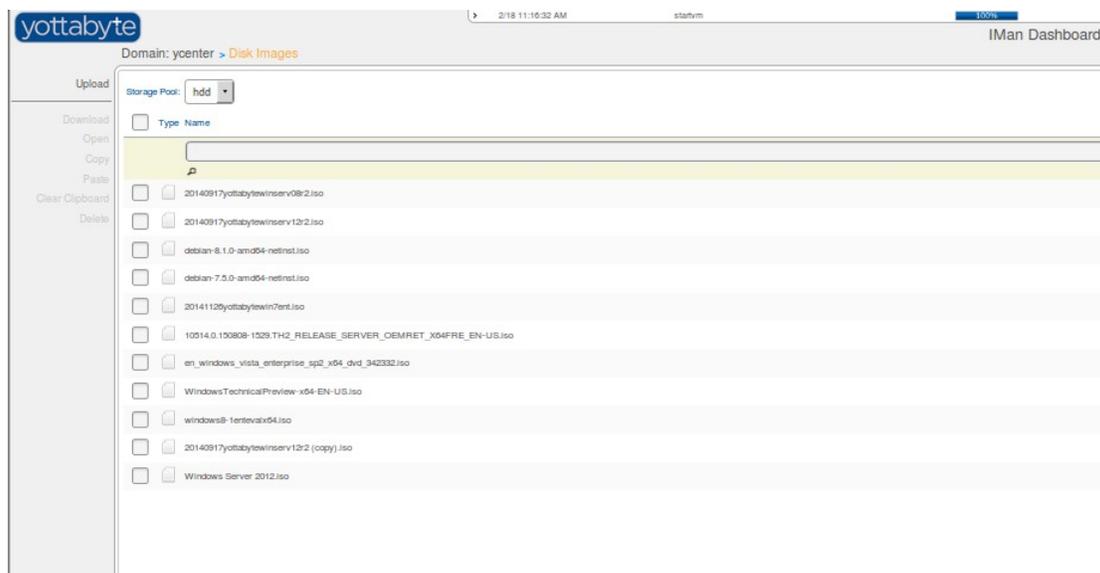
Note: yCenter supports importing VM disks from .vmdk, .qcow and .qcow2 disk image files. Although .ovf files and .vmx files cannot be used to automatically create a new yCenter VM, these are readable files that can be manually referenced to easily create a new custom VM in yCenter, using disk image files used to populate the disks accordingly. Direct support for automatic translation of .ovf and .vmx files is planned for yCenter version 4.

For assistance in accessing .vmx, .vmdk and .qcow disk images from existing VMs, please see the last section of this document: **Locating and Obtaining Disk Image Files** or contact Yottabyte Customer Support.

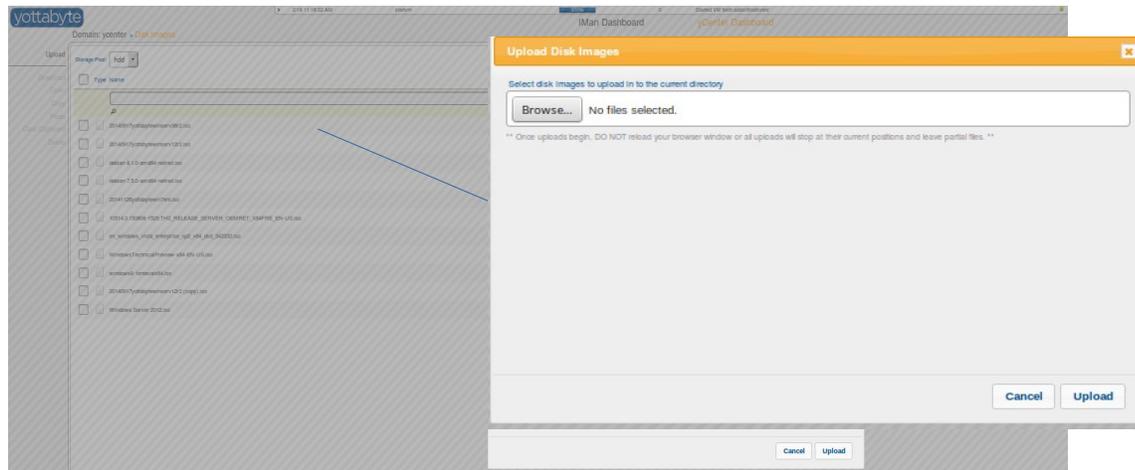
Steps to Import an existing VM to yCenter

1. Upload Configuration and Disk Image Files:

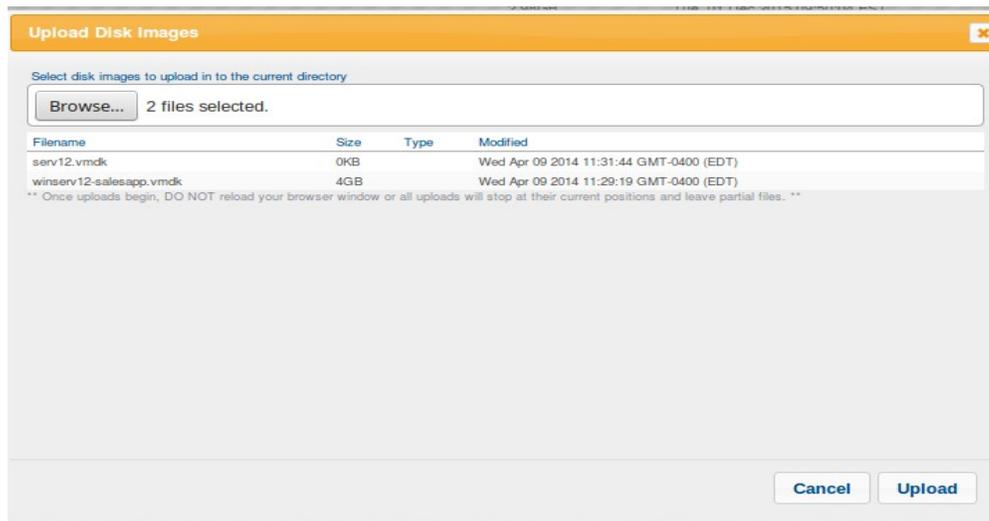
- From the Domain or VE dashboard, select **Disk Images** from the left menu.
- Select a **Storage Pool** from the drop-down list. (Upload each drive image to the storage pool where the newly created drive should ultimately reside.)
- Click **Upload** from the left menu.



Upload dialog:



- Click the **Browse** button.
- Navigate to the file's location, select the file(s). Multiple files can be selected within the same folder by using the ctrl or shift keys.
- When desired file(s) selected, click **Open**. The Upload dialog will appear showing the number of files selected and a listing of the files that were selected.
- Click **Upload** to confirm and begin the file transfer.



- The file will now begin uploading to the vSAN and appear in the file list on the Disk Images dashboard and will show transfer progress until the file is completely uploaded.

Once the upload begins it is important to NOT reload the browser page or hit the back button. The browser page must be left open and you must stay logged into yCenter for the upload to complete.

2. Create a new VM:

- From the Domain or VE dashboard, select **New Custom VM** from the left menu.
- Create the VM with appropriate configuration. Reference the associated .vmx or .ovf file as necessary to reproduce original VM configuration, such as memory, number of CPUs, chipset, number of drives, number of Nics, MAC addresses ¹, etc.
- After verifying configuration of the new VM, including number and size of drives, and numbers of NICs with corresponding drivers, Click **Submit**.

For more detailed information related to configuring a new VM in yCenter consult the yCenter quick reference guide: <http://www.yottabyte.com/pdf/20160212yCenterQuickRefGuide30632.pdf>

If the virtual machines are using virtual SCSI drives, you will need to temporarily switch them to the more compatible IDE drives. These can be switched to VIRTIO for optimal performance, once you have verified that the imported VM boots and operates as expected. Instructions for Installing VIRTIO drivers on Windows VMs can be found at the Yottabyte download center:

<http://yottabyte.com/company/download-center>

Once all configuration of the VM is complete, click **Submit** to save the VM.

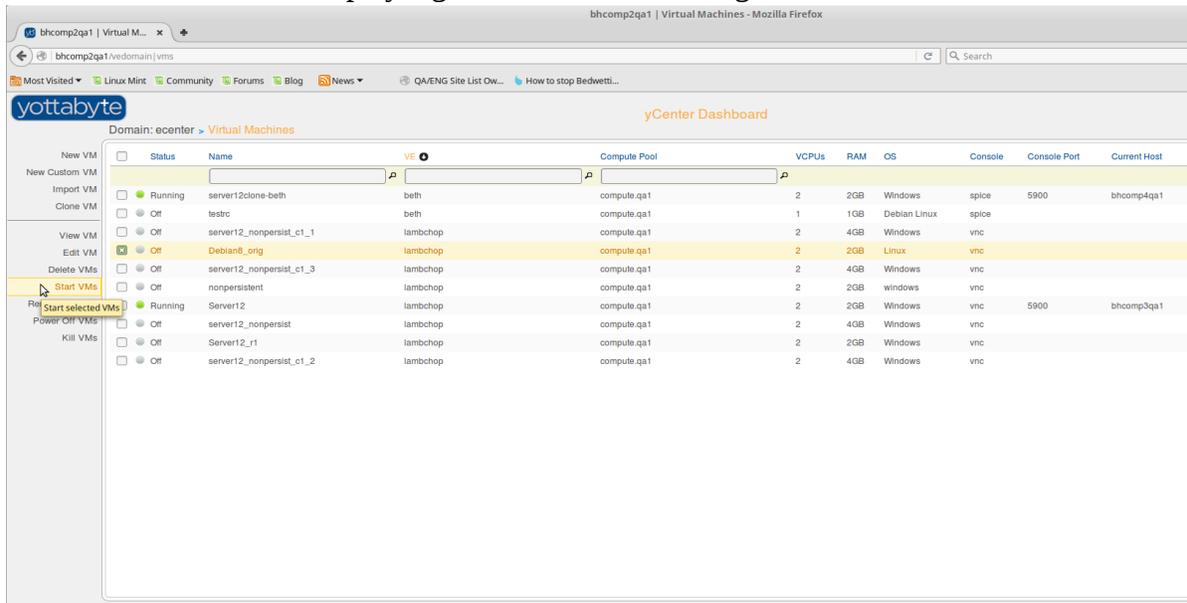
The screenshot displays the 'New Custom VM' configuration interface in the yCenter web console. The interface is organized into several panels:

- General:** Contains 'Virtual Environment' (set to 'customVE1'), 'VM Name', 'Operating System', and a 'Description' field.
- System:** Includes 'Ram (8G MAX)' (set to 1 GB), 'CPU Count (8 MAX)' (set to 1), 'CPU Type' (Intel Core i7), 'Boot order' (hard drive, cdrom), 'Machine type' (PC), 'Remote Console' (VNC), 'Remote Console Password', 'Confirm Remote Console Password', 'USB Tablet mode (recommended for VNC)' (checked), and 'Video Hardware' (Standard VGA card with VESA 2.0 VBE extensions).
- Compute Pools:** Shows 'Primary Pool' (default (48) Cores Max) and 'HA Timeout (seconds)' (30).
- Drives:** Features two vSAN drives (hdd (8BT Max Space)) and a CD-ROM drive. Each drive has fields for 'Media Type', 'Interface', 'Cache', 'Max Space', and 'Description'.
- NICs:** Includes a 'Virtio' network interface with fields for 'Virtual Network', 'MAC Address', and 'Description'.

At the bottom right of the configuration area, there are 'Cancel' and 'Submit' buttons.

3. Start the new VM:

- With the new VM selected, click **Start VMs** on the left menu.
- The Status column should display a green icon and “Running” for the new VM.



4. Certify the VM is working as expected:

- Select **Remote Console** on the left menu to verify a proper boot, login, and proper functioning of any applications.
- Verify proper networking
 - For any NIC where a new MAC was used, reconfiguration within the OS may be necessary.
 - ◆ Example:

A Linux install where udev rules are in place, and previously NIC was labeled “eth0”. After import, with new MAC address, the first NIC is detected as new device “eth1”.
 - After network configuration is performed (if needed), connection from clients, peer servers, remote locations etc. should also be verified, where applicable, to ensure network settings are correct.

Locating and obtaining .VMDk and .qcow files

If you are not aware of how to grab the existing .vmx and .vmdk files from VMWare, we have included a few suggestions.

Start by powering down the Virtual Machine that you want to export/copy. Enable ssh on your ESXi host, it is typically disabled by default. There are many Google articles on how to enable this.

Once ssh is enabled, you can use either scp (Secure Copy) or sftp (Secure FTP) to copy the files to a machine, where you can upload the images via the yCenter UI.

Locating .VMX and .VMDK Files:

First you will need to ssh into the ESXi server to find the path to the data (.vmx and .vmdk) of the server(s) that you want to export/copy.

```
ssh "username"@ "IP or hostname of EXSi server" ie. ssh root@192.168.250.10
```

Next we need to search for the location of the various .vmx files.

```
find / -name "*.vmx"
```

Now you will be able to see the full path to each .vmx file, if copying multiple files, you may want to copy and paste this into a text editor for ease of use later. Simply type exit to exit your ssh session.

Method 1 - SCP (Secure copy):

This method uses SCP to copy the remote directory to your local machine.

```
scp -r "username"@ "IP or hostname of ESXi server": "remote directory path" / "local file path or second remote file path"
```

```
ie. scp -r root@192.168.250.10:/vmfs/volumes/52499a83-6b6f0fa0-7277-00259032adc2/dev5 /Volumes/Storage/
```

```
ie. scp -r root@192.168.250.10:/vmfs/volumes/52499a83-6b6f0fa0-7277-00259032adc2/dev5 admin@192.168.250.35:/Volumes/Storage
```

Once the copy has completed, upload the files to yCenter via the file browser (please see the next section on file uploads via the yCenter UI).

Method 2 - SFTP (Secure FTP):First you must initiate the SFTP session between the hosts.

```
stfp "username"@IP or hostname of ESXi server"
```

You can navigate directly to the path of the directory you need to copy using the change directory command. ie. cd /vmfs/volumes/...

(You can use the pwd command to show the working directory that you are in, and/or ls to show the files within that directory)

Execute the lcd command to change the local directory to where the files will be downloaded.

```
ie. lcd /Volume/Storage
```

Next you will need to start the copy process using the "get" command.

Depending on if you navigated to the actual directory, your path may vary.

```
get -r /"full path to directory"
```

```
ie. get -r /dev5
```

```
ie. get -r /vmfs/volumes/52499a83-6b6f0fa0-7277-00259032adc2/dev5
```

Once the copy has completed, upload the files to yCenter via the file browser (please see the next section on file uploads via the yCenter UI).

Open Source file formats (OVF/OVA)

OVF is a collection of items in a single folder. This commonly includes: .ovf description file, a .mf manifest file and *.vmdk, *.vhd files. OVA (.ova) is a single tar archive file containing these folder contents. To utilize an ova file, contents will need to be extracted. Once extracted, the *.ovf file can be referenced for overall VM configuration, and disk image files (e.g. *.vmdk) should be imported for disks of the VM.