**Azure\_Migration\_HowTo\_Moving a VM from one region to another**

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**Summary**

The following walkthrough has been created to assist you with the task of moving your VM from one region to another where on high level this would be done by:

1. Stop your VM
2. Copy the VHD files into a storage account in another region
3. Build your new VM in the desired region using the copied VHD files

**Limitation**

* Migration of any resource other than a Virtual Machine. New Resource Groups, vNets, etc will need to be considered and configured within the new region.

**Instructions**

**Note:** Third Party MarketPlace images require plan info when rebuilding the VM, without these details added the deployment will fail. Please be sure to collect the plan info from the deployment before attempting to build your VM in the new region.

**Moving a Virtual Machine using Unmanaged disks from one region to another**

1. Stop/deallocate the VM.
2. Once the VM is completely stopped, we can use [Storage Explorer](https://azure.microsoft.com/en-us/features/storage-explorer/) to copy the VHD files.
   1. Guide to connect to your subscription so your storage accounts are listed in [this article](https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storage-explorer#connect-to-an-azure-subscription)
   2. Guide to managing blobs (all you’ll need to do is click copy on a given blob, navigate to the storage account and container it needs to move to, and paste to start the copy. More information on [this article](https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-explorer-blobs#managing-blobs-in-a-blob-container)
3. Once the copy is complete for all disks for a given VM, you would then be able to recreate the VM from this specialized OS VHD copy. In this case we are going to use one of the following template deployments. As we have only copied the VHD files, you will need a new NIC.
   1. To deploy to an existing VNET, you can use the [following template](https://github.com/Azure/azure-quickstart-templates/tree/master/201-vm-specialized-vhd-existing-vnet) where the disk URI is the URI of the disk copy.
   2. To create a new vNET you can use this [other template](https://github.com/Azure/azure-quickstart-templates/tree/master/201-vm-specialized-vhd) **Note:** For those templates, if you are re-creating a VM which was originally created from a marketplace image you will need to add plan information. Click ***edit template*** prior to purchase and add the JSON syntax with corresponding data just like the sample screenshot attached.   
      
4. Once your VM is created, you can re-attach any data disks as necessary

**Moving a Virtual Machine using Managed disks from one region to another**

If the VM uses managed disks, the only option is to make an unmanaged disk copy to a destination storage account in the destination region via Azure PowerShell – this sample script assumes the storage account already exists, and the VM is stopped/deallocated:

1. Stop/Deallocate the Virtual Machine
2. Create a new storage account in the region you wish to move your VM.
3. Create the unmanaged copy of your disk using [Azure PowerShell](https://github.com/Azure/azure-powershell/releases/download/v5.0.0-November2017/azure-powershell.5.0.0.msi)

*DISCLAIMER: This sample is provided as is and is provided only for illustrative purposes. The end user must test and modify the sample to suit their target environment. Microsoft can make no representation concerning the content of this sample. Microsoft is providing this information only as a convenience to you and therefore cannot make any representations regarding the quality, safety, or suitability of any code or information found here.*

#create you variables

$subid = "SubscriptionID";

$rgname = "ResourceGroupName";

$diskname = "NameofManagedDisk";

$saname = "DestinationStorageAccountName";

$sakey = "DestinationStorageAccountKey";

$destcontainer = "DestinationContainerName";

$destvhd = "DestinationDiskname.vhd";

#Login to your account and choose the necessary subscription

Login-AzureRmAccount;

Set-AzureRmContext -SubscriptionId $subid;

#grant permissions and set destination for copy

$sas = Grant-AzureRmDiskAccess -ResourceGroupName $rgname -DiskName $diskname -DurationInSecond 3600 -Access Read;

$destContext = New-AzureStorageContext –StorageAccountName $saname -StorageAccountKey $sakey;

$blobcopy=Start-AzureStorageBlobCopy -AbsoluteUri $sas.AccessSAS -DestContainer $destcontainer -DestContext $destContext -DestBlob $destvhd;

#Begin copy

while(($blobCopy | Get-AzureStorageBlobCopyState).Status -eq "Pending"){ Start-Sleep -s 30 $blobCopy | Get-AzureStorageBlobCopyState};

#This command will query the status of the copy, looking like a stream of errors. Once copy is complete, this will stop.

1. Once the copy is complete, convert the copied unmanaged disk back to a managed disk.
   1. Navigate to the *Disks* section of the Azure portal.
   2. Click *+Add* at the top
   3. Enter required fields
   4. Select source as storage blob
   5. Browse to this new disk copy and select to create a managed disk from the blob copy.
2. Once the disk is created, re-create your VM from the Azure portal.
   1. Navigate to the *Disks* section of the Azure portal.
   2. Click *+Create VM* at the top of the window.
   3. Enter all required fields in sections 1-3, and click OK
   4. Once validation completes, click OK to create your VM
3. Once your VM is created, you can re-attach any data disks as necessary