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HOW TO: Shrink a VMware Virtual Machine Disk (VMDK) using VMware vCenter Converter Standalone v5.5.2 In my previousVMware Experts Exchange Articles, most featured Intermediate VMware Topics. My next series of articles will concentrate on topics for the VMware Novice; this is thethirteenth article in this series. If you would like to read the other articles in this series, they are listed here for your convenience. During this series of articles VMware released VMware vSphere 5.5 and VMware vSphere Hypervisor ESXi 5.5. These articles are also applicable to VMware vSphere Hypervisor ESXi 5.x and 5.5. For consistency, I have used VMware vSphere Hypervisor ESXi 5.1 throughout this series. Increasing the size of a VMware Virtual Machine Disk (VMDK) is straightforward, and is supported in the vSphere Client, by selecting the virtual hard disk, and increasing the size using the up arrow icon or typing in a new value. Please see my previous Experts Exchange article and screenshot below: HOW TO: Resize a VMware (VMDK) Virtual Disk However, although there is a down arrow present, you cannot shrink the disk in this way, it's not supported. The only supported method of shrinking a VMware virtual machine disk (VMDK) is to useVMware vCenter Converter Standaloneand create a virtual to virtual (V2V) conversion, a similar process to a Physical to Virtual (P2V) conversion. I have decided to write this Experts Exchange Article, due to the many Expert Exchange questions which are asked on this subject, of how do I reduce the size of my virtual machine? Please see my previous Experts Exchange articles HOW TO: FAQ VMware P2V Troubleshooting In this article we will show youHOW TO: Shrink a VMware Virtual Machine Disk (VMDK) using VMware vCenter Converter Standalone Before your start the following procedure, please ensure you have a valid and tested Full Backup of your virtual machine. This does not mean a VMware Snapshot. Also check to see the virtual machine is NOT running on a Snapshot disk, If unsure please refer to my Experts Exchange Article HOW TO: VMware Snapshots :- Be Patient See my Experts Exchange article below for download links for VMware vCenter Converter Standalone v5.5.2 Download and install VMware vCenter Converter Standalone on the virtual machine, which is attached to the virtual machine disk (VMDK), that you need to re-size or shrink. It is recommended and best practice, to install VMware vCenter Converter Standalone on the virtual machine to be converted; this overcomes network, communication, firewall and permissions issues. Click the VMware vCenter Converter Standalone icon VMware vCenter Converter Standalone will start. Click the Convert machine button, in the top left. At the Source System dialogue, Select the source system you want to "convert" (re-size virtual disk). Select source type: Powered-on machine Specify the powered-on machine type If you have installed VMware vCenter Converter Standalone on the virtual machine to be "converted" (re-sized) Andys - Best Practice and Recommended! Select This Local Machine In this tutorial Im going to perform a remote or network conversion, to perform a remote or network conversion across the network Select source type: Powered-on machine Specify the powered-on machine type Select A remote machine Enter the IP Address or hostname of the machine to be converted, ensure this machine is reachable from the conversion machine across your network. i.e. VMware vCenter Converter Standalone must be able to communicate with the machine to be converted. Enter the user name and password of a user account which has Local Administrator permissions for the remote machine. Specify the OS Family. Windows We are converting a Windows OS, which has a virtual machine disk size of 127GB, the details are shown of this virtual machine in the first screenshot in this tutorial. This was created by an over-zealous VMware Administrator, which was too large for a Windows 2012 R2 Server OS, system disk! Click Next to continue with the conversion If performing a remote conversion across a network, VMware vCenter Converter Standalone will need to deploy an Agent to the remote machine, and will display the following diaglogue Leave the defaults, and the VMware vCenter Converter Standalone Agent, will be automatically uninstalled when the conversion completes. Select Yes to continue. If the user name and password, network, communications, and permissions are correct, the agent will be deployed as follow, if an error is displayed at this stage, check username, password, network, firewalls and permissions. Select the Destination System: Select VMware Infrastructure virtual machine VMware Infrastructure virtual machine is either a VMware vSphere vCenter Server, or VMware vSphere Hypervisor (ESXi). The other option VMware Workstation of other virtual machine, allows you to export the virtual machine to a file share for use with VMware Workstation, VMware Player, VMware Fusion or other VMware or virtualisation product. In this tutorial, we want to re-size the virtual machine disk, on the existing VMware vSphere Hypervisor (ESXi) server. Specify the VMware Infrastructure server details Specify the IP Address or Hostname of the server, and a valid user name and password. if your VMware vSphere Hypervisor (ESXi) host servers are managed by a VMware vSphere vCenter Server, you will need to specify the hostname or IP Address of the VMware vSphere vCenter Server Specify the Destination Virtual Machine name, for the inventory and Click Next to Continue Select the Destination Location for the virtual machine, select a valid datastore with enough storage space, and select a Virtual machine version (Beware version 10 and later can ONLY be managed using the vSphere Web Client available with vCenter Server). VMware products and their virtual hardware version: For further details see here VMware KB:Virtual machinehardwareversions We often select Virtual machine version 8 for ESXi 5.x, and I would recommend this virtual machine version unless you have a specific requirement for 9 or 10. Click Next to Continue This is where the "magic happens", where we can change the size of the virtual disk (VMDK) and OS Partition. Select Edit right of Data to copy This will display the Data to copy page, where changes can be made to re-size the virtual machine disk (VMDK). Select the drop down box, next to the C:. You can select Maintain Size, Minimum Size, or Specify a size in GB or MB. So type in the size of the virtual disk you require. We are going to reduce the virtual disk (VMDK) to 30GB. Select Next to Continue Review the Summary, and Click Finish. The job will be submitted and the conversion will be started. 5. Job Progress A common question asked on Experts Exchange is "How long will it take to convert a virtual machine of xGB?" There is no standard answer, there are so many different variables which affect a conversion speed. size of virtual machine disks speed of source datastore where the virtual machine disks are stored speed of destination datastore where the virtual machine disks are stored network speed You can improve transfer rates by disabling SSL, see my Experts Exchange article You can also use "Sync" mode After a few minutes, a more accurate figure is displayed, when the conversion will be completed. The first Windows OS partition has been converted. Conversion almost complete. see log highlights on the lower right panel Conversion complete. 6. Checking Converted Machine Checking the converted machine, the virtual disk is now 30GB! Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!) Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!) Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!), Windows Server 2012 R2 started. Confirmation using DIsk Manager the Windows Server 2012 R2 OS partition has also been changed to 30GB. Congratulations, you have successfully Shrunk a VMware Virtual Machine Disk (VMDK) usingVMware vCenter Converter Standalone ********** Thank you for reading my article, please leave valuable feedback. If you liked my VMware article and would like to see moreArticles from me, please click the Yes button near the:Was this article helpful?at the bottom of this article just below and to the right of this information. Thank You. Do not forget if you have a question about this article or another VMware, Virtualisation, Windows Server 2012 question, why not post a Question for me and the other Experts Exchange Experts in the VMware, Virtualisation, Windows 2008, Windows 2012 Zones. I look forward to hearing from you. - Andy :- twitter@einsteinagogo ********** This post describes about the steps to shrink the VMDK disk using VMware Converter. If you are looking for vCenter converter Installation, Please refer my blog post on Converter InstallationLog in to vCenter Converter either by selecting localhost if the converter is installed on the local host or by IP address in case of remote machine.Click on Convert Machine to start the conversionSelect VMware Infrastructure virtual machine, If you want to convert a VM running on the vCenter or ESX server.Specify vCenter or ESX server IP address along with the Login Credentials. Here I am connecting my vCenter Server 192.168.0.200 with domain credentials.Once we have connected to our vCenter,Converter shows the complete information about my vCenter inventory along with clusters, hosts and virtual machines. Please refer the above snapshot of vCenter inventory and the below Convereter captured information from vCenter.Select the Virtual Machine which you want to shrink or resize the Virtual disk and click on View Source details and it shows the machine details of that particular virtual machine.My virtual machine has 20 GB of disk. In which 1.61 GB is used and formatted with NTFS.Now Source machine winxp-arena is selectedSpecify the name for the destination virtual machine. Here i have mentioned as winxpaerna-new for my destination virtual machine. The destination virtual machine is nothing but the converted virtual machine and click on Next to continue.Select the datastore and the Virtual Machine hardware version of the destination virtual machine.Now, We can edit the options like Disk , Devices, networks,etc forthe destination virtual machine. Click on the edit to edit the particular settings. Since we are going to resize the vmdk in this post, Click on Edit for the Data to copy.There are 2 options1.Copy all disks and maintain the layoutIt coverts the VM as same layout as the source machine.2. Select volumes to CopyWith this option, we can edit the disk size or number of disks for the destination virtual machine.Edit the Capacity/Size of the C: drive for the destination virtual machine. Since the used space in the source machine in C: drive is 1.61 GB. We will not be able to select the volume size less than that. That is the minimum value (1.6 GB) in our scenario. Refer the below snapshot, it gives 4 options1. Maintain Size (19.99 GB) Total size of the VMDK disk2. Maintain Size (1.61 GB) Used space of the C: drive in that VMDK3. Specify size in GB4. Specify size in MBHere I have specified the C: drive space as 10 GB instead of selectingtotal capacity of 20 GBI addition to the disk size option, we also have the option to select the disk type of the vmdkeither flat or thin. Nothing but thick or thin.Click on Next. It shows the summary page of Source and Destination machine and conversion information of this particular conversion. Click on Finish to start the conversion.We have resized the disk and the above steps is similar for the Virtual-to-Virtual (v2v)conversion also. Extending a virtual disk is a common task. Just grow VMDK disk on VMware and then on the operating system. Usually, you dont need a maintenance window for that. But what if you need to shrink the disk. It is not so obvious. For example, we had a virtual machine that required 1000GB disk space on the first partition, but we moved all files to the second partition, and only OS left, so we now need only 50GB. Lets check what we can do: Use VMware Converter supported by VMware when using VMware Converter converting source virtual machine as a machine source (not as virtual to virtual).Use Storage vMotion and change disk format to thin I know that it is not shrinking, but we can reclaim storage space in that way. I think thats all if we are talking about supported ways. If you know other ways, share that in the comments. I will show you different ways that I did a lot of times, and it works. Keep in mind that VMware may not officially support this and before you start, do a backup (not snapshot)! Requirements and limitations We dont want to fight with parent and children disks, so delete all snapshots.Our VMDK disk has to be thick (if your disk is thin, inflate provisioned disk).Schedule a maintenance window.The procedure is limited to MS Windows VMs. I didnt test that for other OS.We need at least MB/GB/TB on one of our datastores.Check if you have a backup Shrinking disk procedure First, we need to shutdown VM and inflate our VMDK file. Power on VM and log into OS (user needs sufficient privileges). We need to migrate the data from the end of the disk to ensure the data will not be lost. We can use a Windows disk defragmenter or 3rd party software (/X perform free space consolidation on the specified volumes). TIP!: Disk defragmenter cannot move some OS files. For example, pagefile. If you have a problem with the pagefile, disable it or move temporarily to another partition. If you have problem with other OS files, use 3rd party software to move it. C:\Users\Administrator>defrag C: /XMicrosoft Drive OptimizerCopyright (c) Microsoft Corp.Invoking free space consolidation on (C:)...Pre-Optimization Report: Volume Information: Volume size = 49.39 GB Free space = 26.70 GB Total fragmented space = 13% Largest free space size = 21.73 GB Note: File fragments larger than 64MB are not included in the fragmentation statistics.The operation completed successfully.Post Defragmentation Report: Volume Information: Volume size = 49.39 GB Free space = 26.70 GB Total fragmented space = 12% Largest free space size = 21.75 GB Note: File fragments larger than 64MB are not included in the fragmentation statistics. Next, shrink disk on the operating system (Note: DESIRED= Specifies the desired amount of space in megabytes (MB) to reduce the volume). C:\Users\Administrator>DISKPARTMicrosoft DiskPart version 10.0.17763.1554Copyright (C) Microsoft Corporation.On computer: ShrinkVM-Test DISKPART> list volume Volume ### Ltr Label Fs Type Size Status Info ---------- --- ----------- ----- ---------- ------- --------- -------- Volume 0 D DVD-ROM 0 B No Media Volume 1 C NTFS Partition 49 GB Healthy Boot Volume 2 Recovery NTFS Partition 499 MB Healthy Hidden Volume 3 FAT32 Partition 100 MB Healthy System DISKPART> select volume 1Volume 1 is the selected volume. DISKPART> shrink querymaxThe maximum number of reclaimable bytes is: 26 GB (27300 MB) DISKPART> shrink desired=11264DiskPart successfully shrunk the volume by: 11 GB Shutdown guest OS. Open an SSH session to the ESXi host where VM is placed and create new VMDK file with our target disk size (for example, 40GB). [root@ESXi:~] cd /vmfs/volumes/TestDS/Shrink-TestVM/[root@ESXi:/vmfs/.../Shrink-TestVM] ls -altotal 52438208drwxr-xr-x 1 root root 77824 Feb 15 12:24 .drwxr-xr-t 1 root root 77824 Feb 15 11:40 ..-rw------- 1 root root 270840 Feb 15 12:24 Shrink-TestVM.nvram-rw-r--r-- 1 root root 0 Feb 15 11:41 Shrink-TestVM.vmsd-rwxr-xr-x 1 root root 3688 Feb 15 12:24 Shrink-TestVM.vmx-rw------- 1 root root 47 Feb 15 11:44 Shrink-TestVM.vmxf-rw------- 1 root root 3277312 Feb 15 12:24 Shrink-TestVM_3-ctk.vmdk-rw------- 1 root root 53687091200 Feb 15 12:24 Shrink-TestVM_3-flat.vmdk-rw------- 1 root root 625 Feb 15 11:57 Shrink-TestVM_3.vmdk-rw-r--r-- 1 root root 282011 Feb 15 12:24 vmware.log [root@ESXi:/vmfs/.../Shrink-TestVM] vmkfstools -c 40G new_temp_C_drive.vmdkCreate: 100% done. Check details of new created VMDK file and note: extent description and ddb.geometry values. [root@EXi:/vmfs/.../Shrink-TestVM] cat new_temp_C_drive.vmdk# Disk DescriptorFileversion=1encoding="UTF-8"CID=ffffffffeparentCID=ffffffffcreateType="vmfs"# Extent descriptionRW 83886080 VMFS "new_temp_C_drive-flat.vmdk"# The Disk Data Base#DDBddb.adapterType = "lsilogic"ddb.geometry.cylinders = "5221"ddb.geometry.heads = "255"ddb.geometry.sectors = "63"ddb.longContentID = "3882663c4ce0514c7431d495ffffffffe"ddb.uuid = "60 00 C2 99 61 59 98 06-b7 48 e9 e3 2c 76 51 4d"ddb.virtualHWVersion = "14" Edit the original VMDK file and change those values to the noted. [root@ESXi:/vmfs/.../Shrink-TestVM] vi Shrink-TestVM_3.vmdk# Disk DescriptorFileversion=3encoding="UTF-8"CID=28f22be8parentCID=ffffffffcreateType="vmfs" # Extent description# OLD VALUES: RW 104857600 VMFS "Shrink-TestVM_3-flat.vmdk"RW 83886080 VMFS "Shrink-TestVM_3-flat.vmdk" # Change Tracking FilechangeTrackPath="Shrink-TestVM_3-ctk.vmdk" # The Disk Data Base#DDB ddb.adapterType = "lsilogic"ddb.deletable = "true"# OLD VALUES ddb.geometry.cylinders = "6527"ddb.geometry.cylinders = "5221"ddb.geometry.heads = "255"ddb.geometry.sectors = "63"ddb.longContentID = "c86226912bb37442395ff5fc28f22be8"ddb.thinProvisioned = "0"ddb.toolsInstallType = "1"ddb.toolsVersion = "11297"ddb.uuid = "60 00 C2 95 85 1e 89 de-55 63 e6 d8 1a b4 ea 50"ddb.virtualHWVersion = "14" Remove the temporary disk and clone the original disk with a new descriptor. [root@ESXi:/vmfs/.../Shrink-TestVM] rm new_temp_C_drive*[root@ESXi:/vmfs/.../Shrink-TestVM] vmkfstools -i Shrink-TestVM_3.vmdk Shrink-TestVM_3_new.vmdkDestination disk format: VMFS zeroedthickCloning disk 'Shrink-TestVM_3.vmdk'...Clone: 100% done. Now we have prepared shrunk VMDK disk. Lets remove an old disk from VM and attach the new one. Power on VM and check disk. Summary: As you can see, the whole procedure is quite simple. In short words, we have to: change the descriptor, make a disk clone and attach the cloned disk. If you think that post was helpful or you have any questions, leave a comment. Stay tunned! HOW TO: Shrink a VMware Virtual Machine Disk (VMDK) using VMware vCenter Converter Standalone v5.5.2 In my previousVMware Experts Exchange Articles, most featured Intermediate VMware Topics. My next series of articles will concentrate on topics for the VMware Novice; this is thethirteenth article in this series. 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Also check to see the virtual machine is NOT running on a Snapshot disk, If unsure please refer to my Experts Exchange Article HOW TO: VMware Snapshots :- Be Patient See my Experts Exchange article below for download links for VMware vCenter Converter Standalone v5.5.2 Download and install VMware vCenter Converter Standalone on the virtual machine, which is attached to the virtual machine disk (VMDK), that you need to re-size or shrink. It is recommended and best practice, to install VMware vCenter Converter Standalone on the virtual machine to be converted; this overcomes network, communication, firewall and permissions issues. Click the VMware vCenter Converter Standalone icon VMware vCenter Converter Standalone will start. Click the Convert machine button, in the top left. At the Source System dialogue, Select the source system you want to "convert" (re-size virtual disk). Select source type: Powered-on machine Specify the powered-on machine type If you have installed VMware vCenter Converter Standalone on the virtual machine to be "converted" (re-sized) Andys - Best Practice and Recommended! Select This Local Machine In this tutorial Im going to perform a remote or network conversion, to perform a remote or network conversion across the network Select source type: Powered-on machine Specify the powered-on machine type Select A remote machine Enter the IP Address or hostname of the machine to be converted, ensure this machine is reachable from the conversion machine across your network. i.e. VMware vCenter Converter Standalone must be able to communicate with the machine to be converted. Enter the user name and password of a user account which has Local Administrator permissions for the remote machine. Specify the OS Family. 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Select the Destination System: Select VMware Infrastructure virtual machine VMware Infrastructure virtual machine is either a VMware vSphere vCenter Server, or VMware vSphere Hypervisor (ESXi). The other option VMware Workstation of other virtual machine, allows you to export the virtual machine to a file share for use with VMware Workstation, VMware Player, VMware Fusion or other VMware or virtualisation product. In this tutorial, we want to re-size the virtual machine disk, on the existing VMware vSphere Hypervisor (ESXi) server. 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Click Next to Continue This is where the "magic happens", where we can change the size of the virtual disk (VMDK) and OS Partition. Select Edit right of Data to copy This will display the Data to copy page, where changes can be made to re-size the virtual machine disk (VMDK). Select the drop down box, next to the C:. You can select Maintain Size, Minimum Size, or Specify a size in GB or MB. So type in the size of the virtual disk you require. We are going to reduce the virtual disk (VMDK) to 30GB. Select Next to Continue Review the Summary, and Click Finish. The job will be submitted and the conversion will be started. 5. Job Progress A common question asked on Experts Exchange is "How long will it take to convert a virtual machine of xGB?" There is no standard answer, there are so many different variables which affect a conversion speed. size of virtual machine disks speed of source datastore where the virtual machine disks are stored speed of destination datastore where the virtual machine disks are stored network speed You can improve transfer rates by disabling SSL, see my Experts Exchange article You can also use "Sync" mode After a few minutes, a more accurate figure is displayed, when the conversion will be completed. The first Windows OS partition has been converted. Conversion almost complete. see log highlights on the lower right panel Conversion complete. 6. Checking Converted Machine Checking the converted machine, the virtual disk is now 30GB! Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!) Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!) Powering-ON the the converted machine, confirms correct BOOT-up sequence (no BSOD!), Windows Server 2012 R2 started. Confirmation using DIsk Manager the Windows Server 2012 R2 OS partition has also been changed to 30GB. Congratulations, you have successfully Shrunk a VMware Virtual Machine Disk (VMDK) usingVMware vCenter Converter Standalone ********** Thank you for reading my article, please leave valuable feedback. If you liked my VMware article and would like to see moreArticles from me, please click the Yes button near the:Was this article helpful?at the bottom of this article just below and to the right of this information. Thank You. Do not forget if you have a question about this article or another VMware, Virtualisation, Windows Server 2012 question, why not post a Question for me and the other Experts Exchange Experts in the VMware, Virtualisation, Windows 2008, Windows 2012 Zones. I look forward to hearing from you. - Andy :- twitter@einsteinagogo ********** In this article, we will look at how to reduce the size of a virtual machines hard disk (VMDK) in VMware ESXi. From the vSphere Client GUI, you cannot reduce the size of a virtual disk (only the option to increase the VM disk size is available). An error occurs when you try to specify a smaller VM disk size: Enter a disk size which is larger than its original capacity.Before you can reduce the size of the virtual disk on the VMWare ESXi datastore:Delete all virtual machine snapshots;Backup the virtual machine, or at least make a copy of the *.vmdk and the *-flat.vmdk files of the virtual hard disk you want to shrink. In the ESXi console, run the following commands: cp vmname.vmdk backup_vmname.vmdk cp vmname-flat.vmdk backup_vmname-flat.vmdk Reducing the virtual disk file in VMware is a two-step process:Shrink the partition size within the guest OS;Reduce the size of a VMware virtual machines VMDK file on VMFS (NFS) datastore.How to Shrink Disk Partition in the Guest OSFirst of all, reduce the size of the disk partition in the guest operating systemIf the VM has a Windows guest OS installed:Open the Disk Management console (diskmgmt.msc);In this case, the WinRE Recovery Partition is to the right of the partition we want to shrink. To shrink the partition in Windows, there should be no other partitions to the right of the partition you are trying to shrink. You need to either move the winre.wim recovery image from a separate partition to the system one, or move the recovery partition to the beginning of the partition table (both options are described in detail in the post: Cannot extend volume blocked by a recovery partition);You can now reduce the size of the main partition. In modern versions of Windows, you can reduce the size of the partition without rebooting; in older versions, you have to use the sdelete tool. Click on the partition and select Shrink Volume;Suppose you need to reduce VM disk size by 40GB. In the Enter the amount of space to shrink in MB box, type 40960 MB (40 GB x 1024) and click Shrink; When the shrink task is complete, 40GB of unallocated space will appear to the right of your main partition.For the Linux VMs, you can boot the virtual machine from a GParted LiveCD (GNOME Partition Editor) if you need to reduce the size of the root partition. Shrink partitions using the GParted GUIs Resize/Move menu. Move partitions if necessary. To apply changes, select Edit -> Apply all operations. The tool will resize partitions and reduce the file system using Rezise2fs.Boot the Linux guest VM and check that everything is working correctly.Reduce the Size of a VMware Virtual Machine Disk (VMDK)You can now reduce the size of the VMDK file on the VMware VMFS file system.Shut down the VM;Use SSH to connect to the ESXi host on which the virtual machine is registered;Navigate to the directory where the VM vmdk file is located (you can find the path to the VMDK file in the virtual disk properties in the vSphere client): cd /vmfs/volumes/datastore/test-VM List the virtual disk configuration file (*.vmdk) using the cat command: # cat test_vm_3.vmdk The size of the vmdk disk is set in the #Extent description section (after the RW symbols). In this case, it is 167772160 (80 GB *1024*1024*1024 / 512); I want to reduce my VMDK disk by 40 GB. This means that I have to specify 83886080 in the Extent description section. This value is calculated as follows: 167772160 (current disk size) 83886080 (40 GB*1024*1024*1024 / 512);Edit the virtual disk configuration file using vi: # vi test_vm_3.vmdkUse the down arrow key to scroll to the line containing the disk size and press i (to edit it). Specify the new size of the virtual disk. Press ESC to exit the edit mode and then type :wq -> Enter to save the changes; The remaining step is to migrate the VM to another datastore using Storage VMotion. The virtual machine properties will show the new virtual disc size after the virtual machine files are moved.Tip. If you have only one ESXi host, the easiest way to update the disk size in the vSphere Client is to simply re-register the virtual machine. Click on the VM and select Unregister.Then go to the Storage section, find the VMFS/NFS datastore where the VM is located -> click Datastore Browser, find the VM directory, click on the VMX file, and select Register.Or you can clone the VMDK file using this command:vmkfstools -i test_vm_3.vmdk test_vm_3_newsize.vmdkThen delete the original VMDK file and clone the disk again, to revert to its original name:rm test_vm_3.vmdk rm test_vm_3-flat.vmdk vmkfstools -i test_vm_3_newsize.vmdk test_vm_3.vmdkMake sure that the new size of the virtual disk is now displayed in the VM properties.Then start the VM, logon to the guest OS, and check that the unallocated space has disappeared, and the disk size has been reduced.Shrink a VMDK Disk Using VMware vCenter Converter StandaloneYou can reduce the size of virtual machine hard disks using the VMware vCenter Converter Standalone. This free GUI tool allows you to clone a source VM and set the size of the new disk to be smaller than the original (there must be free space on the guest file system).Cons:V2V conversion is quite slow;There must be enough free space on the datastore to save a new VM;A new MAC address is assigned to the new VM.Pros:Simple graphical interface;An exact copy of a VM is created;The source VM wont be corrupted by incorrect disk resizing actions.Run VMware Converter and specify the ESXi host or vCenter address.Select the source VM.Set the virtual hardware settings for your new (destination) VM.Go to the disk edit mode (Data to copy -> Edit).Select the copy mode: Select volumes to copy.Specify the new virtual disk size for your new VM. In my example, 48 GB on the virtual disk is occupied by the guest OS, and the total disk size is 150 GB. We will reduce the size of the virtual disk to 60 GB. Run the VM conversion process. When finished, turn off the source VM and power on the new one. Check that the virtual disk size has been reduced. The original VM can then be removed. I have a VM that has a VMDK file that is much larger than the data that is actually on the server. Is there anyway to shrink this down to a smaller size?I am currently running ESXi version 5.5 and managing with VMware vSphere. 6 Spice ups Take a look at this: ESX Virtualization 6 Feb 13 Reduce VMDK size - the easiest method is to use VMware converter standalone to shrink VMDK disk files. How to use VMware converter to make VMDK smaller Est. reading time: 4 minutes Use Vmware Converter 1 Spice up Shrinking a VMDK is no longer supported and it never was a good idea. If you can, stand up another, smaller VMDK, move the data to it then delete the oversized one. 2 Spice ups Im dealing with this right now. I was researching this very issue on Spiceworks earlier today. dbeato is correct that the easiest thing to do is use the VMware Converter. We have two servers we have having an issue shrinking virtual HDDs with. OSs are 2003 R2 and 2008 R2, respectively. I have already shrunk the partition sizes down to what I want them to be in Windows (for instance, 80 GBs "unprovisioned" in DiskMgmt). I go into ESXi, edit the VM, try to shrink the VHD but when I go to hit "ok" it changes it back to the original larger value. These are THIN-provisioned disks. What could be the issue here? Thanks.... @VMware Im going to use the V2V Converter option to move it to another host.Just a heads up: I noticed that when I attempted to shrink my drive size in the guest OS to prepare for this, I had to first optimize the drive which took some time. (Server 2012R2) vSphere 6.5 allows in place SCSI UNMAP shrink support all the way to the back end. The Cloud Platform Tech Zone Technical information for the core of the Software-Defined Data Center. 1 Spice up Share copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Thin provisioned disks grow up with the time. When you work with a thin disk provisionned VM, you are copying new files into a VM, then deleting them, again and again, this process grow the thin disks over time. If you delete files from within the VM wanting to gain the space back, it just don't work. The VMDK grows, but don't shrink. While from within the quest OS in the VM you see that you're getting more space, from the vSphere client the disk shows the same size. Natively from within vSphere client it is not possible to shrink VMDK disk files.With VMware Converter standalone the process will actually do a clone of the original VM. But you'll need enough space on your storage somewhere and enough time outside of business hours, because the process operates when the VM is shut down. In my test that you'll be able to follow through the screenshots below, it took 36 min to do the V2V conversion process.The steps How-to Reduce VMDK sizeby using VMware Converter Standalone:Power down your VM > fire up the VMware Converter Standalone software > connect to your vCenter which manages the VM that VMDKs needs to be shrinked > click next.Note: All the images which mignt not looks too sharp are clickable and have sharp details when opens without reloading the page. It's done with WordPress plugin called FancyBox for WordPress.After selecting the source VM on the next screen you'll need to select the destination. It can be the same vCenter server (if you managing your infrastructure with vCenter).Validate by clicking next and on the next screen you'll need to name the VM. Use different name than the source VM.Choose Datastore with enough space. As you can see, the curent version of VMware Converter standalone can only handle VMs with Virtual Hardware version 8. The possibility to convert directly to vmx-09 will certainly be added in future release of VMware Converter.On the next screen wee need to click the Edit link, where behind we'll select other options, like volumes to convert etc..So we are here on this page, where we select the volumes that we want to copy , we can resize them, make thin or thick. In my case I chosed thin and kept the initial size 80Gb thin provisionned.Next screen enables us to select the destination datastore and when clicked on the Advanced, we can choose theImportant option is to choose from the drop down menu thin for the cluster size on the Destination layout TAB. Leave the options for Ignore Page file and hibernation file, and also the Create optimized partition layout checked.Then, 36 minutes later, the conversion process finished the job, so as you can see it's quite long. Well, that's the price to pay..So in my little, but very detailed how-to shrink VMDK disk, you could see that the process can be easily done by using Free software. The risk is almost none since the VM is actually cloned, so no worry about that. The only think to is really the time spent, because the process can belengthyfor VMs which do have large thinprovisioneddisks.In my lab case I ended up with the cloned VM having the size of the thin disk to be 8.4 Gb,which is even more than I expected.Shrinking Thin disks isn't automatic operation, but the converter software can handle several jobs at the same time. The process of creating the job through VMware Converter is very fast and it's securing that you're not altering the original VM in any way. There might be other small inconvenients, like MAC address changes.There are other ways to reclaim disk space. For example by using sdelete command line tool + storage vmotion. This works too with with some limitations. You need at leas one datastore with VMFS 3.x.This little tutorial is mean to help rather people which are in front of a problem, which needs to be resolved fast. Experienced vSphere admins might use other, more advanced techniques for managing VMDK disk files (or not using thin disks at all), or using NFS instead of block level storage for their VMs. I've spend way more time on creating the screenshots for you than the job being done -:). If you like this post don't forget to share ! Unlike expanding a disk of a VMWare virtual machine, it is more complicated to shrink VMDK Virtual Disk Size on the VMWare ESXi hypervisor.It is impossible to do it via the vSphere Web Client graphical interface. It does not allow to specify a smaller virtual disk size.As part of our Server Management Services, we assist our customers with several VMWare queries.Today, let us see how to reduce the size of a virtual disk (vmdk) file of the virtual machine running on VMWare ESXi. Shrink VMDK Virtual Disk Size on VMWare ESXiBefore we reduce the size, we need to do the following on the VMWare ESXi host:Delete all snapshots of the virtual machine not to damage the virtual diskCreate a full backup of the virtual machine or a copy of the vmdk and flat files we want to shrink.cp vmname.vmdk backup_vmname.vmdkcp vmname-flat.vmdk backup_vmname-flat.vmdkThe process to reduce a virtual disk size consists of two steps:Shrink the partition inside the guest OSReduce the size of the VMDK file of the VMWare virtual machine on the VMFS (NFS) datastore. How to Shrink the Partition Size in the Guest OS?Initially, we need to reduce the size of the disk partition in the guest operating system.If the virtual machine runs Windows OS, we use the Disk Manager diskmgmt.msc or third-party tools. Failure of which may lead to a file system crash.For instance, if we want to reduce the disk size by 40 GB, the volume size must reduce by 40960 MB (40 GB x 1024). We enter this value in the corresponding field of the Shrink Volume wizard. Once done, there will be some unallocated space to the right of our partition. Reduce the VMDK File Size of the VMWare Virtual MachineIn order to reduce the size of the VMDK file on the VMWare VMFS file system, our Support Techs suggests the following steps:Initially, we shut down the virtual machine we want to reduce disk size.Via SSH, we connect to the console of the ESXi host the VM is registered onThen we go to the directory the VMDK file of our VM is located in:cd /vmfs/volumes/datastore/test-VMWe display the contents of the virtual disk configuration file (*.vmdk) using the cat command:# cat test_vm_3.vmdkThe size of the vmdk disk is shown in the #Extent description section.To reduce the VMDK disk from 80 to 40 GB, we have to specify 83886080 in the Extent description section. Set the new size of the virtual disk using a text editor.For example,# vi test_vm_3.vmdkFrom the down arrow key, go to the line containing the disk size. Specify the new size, save the changes and close the file.Then we clone or migrate the virtual machine to another datastore. Once we move the virtual machine files, the new size of its virtual disk will display in its properties.Ensure the new size displays in the VM properties.Then start the VM, log in to the guest OS, and make sure that the unallocated area has disappeared and the disk size has been reduced. Shrink a VMDK Using VMware vCenter Converter StandaloneGUI tool VMware vCenter Converter Standalone is another way to reduce a virtual disk size of a VMWare virtual machine.Pros:V2V conversion is slowNeed enough space on the datastore to save the new VMThe new virtual machine will have a new MAC address.Cons:We do not need to open the vCenter or ESXi host consoleCreates an exact copy of a VMThe source disk cannot be damaged in case of any errors in conversion task settings.Instead of Suspend, we have to Shut down the virtual machine we want to change the disk size.Initially, we specify the ESXi host address and select the source VM.Then we set the parameters of the new VM.Go to the disk edit mode (Data to copy -> Edit).Select the copy mode: Select volumes to copy.We specify the new disk size for the new VM.Once we run the VM conversion process, we can power off the source VM and power on the new one.Ensure the disk size has been reduced. After that, we can remove the original VM.[Need help to shrink the size? Wed be happy to assist] ConclusionIn short, we saw how our Support Techs shrink VMDK Virtual Disk Size on VMWare ESXi. Never again lose customers to poor server speed! Let us help you.Our server experts will monitor & maintain your server 24/7 so that it remains lightning fast and secure.GET STARTED var google_conversion_label = "owonCMyG5nEQ0aD71QM";

Vmware converter reduce disk size. Vmdk reduce size. Vmware reduce vmdk size. Vmware reduce disk size.