

Recovering from broken snapshot chain? ...



[jones.matt](#) 26 posts since

Jun 20, 2005 Here's the situation: I have modified the base VMDK of a snapshot set, breaking the entire chain.

Here's how I shot myself in the foot:

1. Shutdown VM
2. Extend base VMDK from 10GB to 30GB
3. Attach base VMDK to utility VM and extend volume using diskpart
4. Shutdown utility VM
5. Fail to boot server because of my bonehead move

Is there a way to recover? I've already restored the server, but I need just a few files I know are after the last snapshot. If I can just recover those files, I will just copy them to the newly restored VM manually.

Thanks for any help or words of advice you can provide!



[mittell](#) 3,096 posts since

Apr 25, 2006 **1. Re: Recovering from broken snapshot chain?** Nov 23, 2006 1:40 AM

This is a difficult one, the answer is it's going to be quite hard to get it working but you might be able to bodge the VM to accept a snapshot delta if you've restored the base VMDK to it's previous un-modified state.

Take a look at this thread: <http://www.vmware.com/community/thread.jspa?threadID=62412&tstart=0>



[jones.matt](#) 26 posts since

Jun 20, 2005 **2. Re: Recovering from broken snapshot chain?** Nov 24, 2006 10:07 AM

👤 in response to: [mittell](#) Any tips on how to restore the base VMDK?

Perhaps reduce the NTFS partition to 10GB, then use vmkfstools to shrink the VMDK? Sounds easy in theory, but I don't know exactly where to start.



[mittell](#) 3,096 posts since

Apr 25, 2006 **3. Re: Recovering from broken snapshot chain?** Nov 24, 2006 10:57 AM


👤 in response to: [jones.matt](#) Unfortunately if you tried to boot the base VMDK it'll probably have been modified, meaning the snapshot deltas cannot be applied. Your best bet is probably to restore from backup I'm afraid.



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Jun 20, 2005 **4. Re: Recovering from broken snapshot chain?** Nov 24, 2006 7:06 PM

Recovering from broken snapshot chain? ...


 in response to: [mittell](#) That's the rub.. BackupExec wasn't catching an embedded MySQL database in a piece of software on that server. The vendor's documentation didn't mention any special backup instructions or considerations, and now I'm screwed. I guess I have some bad news to give Monday morning!

On a related note: Would ESXranger or VCB be able to properly backup the MySQL database while the VM was running and the database in use?



[soleblazer](#) 228 posts since

May 25, 2006 5. **Re: Recovering from broken snapshot chain?** Nov 25, 2006 7:07 AM

 in response to: [jones.matt](#) Databases are always a tricky lot. Technically ESXranger may have helped you here, but the fact of the matter is any database is going to have issues if you simply copy the files hot, without putting it into a certain mode. Oracle has RMAN, etc.

Your best bet may be to simply write a script that runs mysqldump , and dumps to a localfilesystem, that is a flat file, then Ranger or VCB would backup the running VM and the dump.



[jones.matt](#) 26 posts since

Jun 20, 2005 6. **Re: Recovering from broken snapshot chain?** Nov 25, 2006 2:26 PM

This only worked because I **did not modify** the disk in ANY way other than stated above!

Solution:

Boot GPartEd ISO in new VM with plain (wwcs-read180.vmdk) drive attached

Shrink partition back to 10GB

Create blank 10GB drive to hold 10GB partition:

```
vmkfstools -c 10G -d thick wwcs-read180-10g.vmdk
```

Copy drive contents using DD, bs and count are set for 10GB drive

```
dd if=wwcs-read180-flat.vmdk of=wwcs-read180-10g-flat.vmdk bs=1048576 count=10240
```

Move broken drive out of the way, name new drive to old name:

```
vmkfstools -E wwcs-read180.vmdk wwcs-read180-30gbad.vmdk
```

```
vmkfstools -E wwcs-read180-10g.vmdk wwcs-read180.vmdk
```

Open snapshot depending on broken VMDK, note parentCID variable:

```
nano wwcs-read180-000001.vmdk
```

Example: parentCID=b7c9e128

Open fixed VMDK, set CID to value from parentCID.

```
nano wwcs-read180.vmdk
```

Example: CID=b7c9e128

Boot Up

Change SCSI type? No

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Hooray!


I'll be doing a FULL backup and reinstalling this application soon on a fresh VM, I don't trust it after all the hackery I've put it through.

Helpful for how to shrink a VMDK: <http://www.vmware.com/community/message.jspa?messageID=423911>



[jhanekom](#) 1,084 posts since

May 13, 2005 7. **Re: Recovering from broken snapshot chain?** Nov 26, 2006 10:38 PM

 in response to: [jones.matt](#) Excellent piece of work! Will keep this as a reference, for sure.

I find the whole multi-level VMDK snapshot-thing very innovative but extremely prone to confusion.

Recently had a customer assign both the original VMDK **and** one of the snapshots to the same virtual machine. Talk about confusion.



[jones.matt](#) 26 posts since

Jun 20, 2005 8. **Re: Recovering from broken snapshot chain?** Dec 21, 2006 10:32 AM

I have posted a more official writeup on my blog about this thread.

<http://www.gorillapond.com/2006/11/26/foot-wounds/>



[SV](#) 317 posts since

Oct 1, 2003 9. **Re: Recovering from broken snapshot chain?** Mar 7, 2007 1:58 PM

We just published KB article 1646892 on the topic. Just FYI...

<http://kb.vmware.com/kb/1646892>