

RDM disks unavailable after ESXi 4 host ...



VirtualWill 10 posts since

Feb 18, 2009

Hi ya guys!

Let's start from the beginning. Two ESXi 4.0.0 hosts running Windows 2008 Virtual Machines (one on each). On VM1/Host1 I created a bunch of RDM disks, 14 to be precise. LUNs obviously reside in the SAN with every LUN presented to both of our hosts with the same LUN #. Then I proceeded to add those same disks to the VM2 running under Host2, using the existing disks from Host1's VM. After that I configured the VMs to run Windows Clustering+SQL2008, which is working fine.

I've been booting the VM's and the Hosts to see how it all works. I've had no problems, until now.

My next test was fatal for the system. I unplugged Host1 from it's power supply. SQL Server had a brief blackout until VM2 picked up where VM1 left. I then proceeded to turn Host1 back on. I could start all the VM's on Host1, except for the VM1 running the Cluster. Out of those 14 RDM's it is saying that 4 are inaccessible. For Host2 everything seems okay. The precise error message is "Virtual disk 'Hard disk 2' is a mapped direct-access LUN that is not accessible.Unable to access file sanfs://vmfs_...:xxx.....xxx/VM1/VM1_1.vmdk". All the disks reside in the same Datastore and the Datastore is functioning just fine.

- 1) I've tried to see if any mappings have changed but I've been unable to find anything wrong.
 - 2) If I go to add a hard disk for VM1 on Host1, I see those four LUNs available for raw mapping, which is not supposed to happen.
 - 3) I removed the four missing disks from VM1 and then imported them back using the same vmdk files and SCSI addresses as before. Everything is fine until I try to start the VM.
 - 4) Clicking Manage Paths for those missing disks produce an error telling me that "There is no multipath configuration for this LUN.". This only happens on Host1, Host2 shows the MP configuration properly.
- So, what should I do next? Even though this is a test environment and the SQL Server is serving clients as we speak (or write, whaeava), I'd like figure this out before we use this configuration for production use.

Thanks,

Mistah Will

P.S. first time poster, I hope I got it all right...



lvong 5 posts since

Mar 13, 2009 1. **Re: RDM disks unavailable after ESXi 4 host crash** Jun 17, 2009 11:40 PM

In order to assist you better, can you provide the following information:

1. Which Windows 2008 version and architecture? sp1, sp2, or r2, x86 or x64.
2. Which SCSI controller type used for the VM, LSI Logic Parallel or LSI Logic SAS?
3. Are 14 RDMs zone only to these two ESXi hosts or other hosts can accessed them as well?
4. What are the HBA card, qllogic or emulex?
5. How many paths per ESXi? are all enabled and operational during the test?
6. What is the array used?

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Thanks.

Lap



[VirtualWill](#) 10 posts since

Feb 18, 2009 2. **Re: RDM disks unavailable after ESXi 4 host crash** Jun 18, 2009 5:17 AM

in response to: [lvong](#)

And here it comes:

1. Windows Server 2008 Datacenter Edition SP2 x64 with SQL Server 2008 Standard SP1 x64
2. LSI Logic SAS, the only option when working with WS2008 clustering
3. RDM LUNs are only presented to these two hosts. Zones used in SAN to differentiate VMWare hosts into their own zone.
4. Hosts are HP BL490c G6's with Qlogic QMH2462 HBAs
5. After going through Paths (in Configuration->Storage Adapters) I can verify both hosts seeing same targets with matching LUNs. Both hosts see four paths to each LUN (2x hba port + 2x san switch). Both hosts list exactly the same 19 targets with 38 paths per HBA port. No paths are disabled.
6. HP EVA4400 with integrated switches

What about this?

1. Try to start the VM1 on Host1 -> VM won't start because of an error (see my first post)
2. Try to migrate the VM1 from Host1 to Host2 -> unable to do so because Host2 can't access those same four RDM disks Host1 is complaining about
3. Remove the four disks from VM1 that are causing trouble (without deleting files from disk)
4. Try migrating the VM1 again from Host1 to Host2 -> Success
5. Add those same disks (same vmdk-files, that is) from VM1's folder in Datastore -> No problem
6. Start VM1 on Host2 -> Success
7. Try to migrate the VM1 back to Host1 -> unable to do so, Host1 can't access disks 2,3,4,6 (disk 2 is quorum, 3-6 are for SQL instance 1, these are the same RDMs again)

Thanks in advance,

Will



[lvong](#) 5 posts since

Mar 13, 2009 3. **Re: RDM disks unavailable after ESXi 4 host crash** Jun 19, 2009 11:20 AM

in response to: [VirtualWill](#)

Can you check if RDM passthrough or non-passthrough?

How to check:

1. edit the properties of the VM
2. Select the disk 2,3, 4, or 6 form the Hardware list.
3. What is the settings on Compatibility Mode? Virtual or Physical?

If Virtual, please change all to Physical mode for Windows 2008 RDM and rerun test.

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Thanks.



VirtualWill 10 posts since

Feb 18, 2009 **4. Re: RDM disks unavailable after ESXi 4 host crash** Jun 21, 2009 4:13 AM

👤 in response to: [lvong](#) Yes, all of the RDM disks are in physical compatibility mode.



lvong 5 posts since

Mar 13, 2009 **5. Re: RDM disks unavailable after ESXi 4 host crash** Jun 22, 2009 1:25 PM

👤 in response to: [VirtualWill](#)

Can you file a Service Request on the web, <http://support.vmware.com/selfsupport/>, or ontact support through 1-877-486-9273. They will assist in helping to collect all the relevant logs so we can assist you further.

Thanks.



lvong 5 posts since

Mar 13, 2009 **6. Re: RDM disks unavailable after ESXi 4 host crash** Jun 30, 2009 3:45 PM

👤 in response to: [lvong](#)

Hi,

Were you able to contact support and coordinate with them in collecting all the logs? If that option is not feasible, can you repro the issue and note the date and time (PST time) . Run vm-support on the ESX console from both ESX hosts and upload the files here. We will attempt to troubleshoot from there. Thanks.

Lap



VirtualWill 10 posts since

Feb 18, 2009 **7. Re: RDM disks unavailable after ESXi 4 host crash** Jul 20, 2009 5:41 AM

👤 in response to: [lvong](#) Well, I was contacted by VMware support asking for my contact details so that they could create a new support case. I did send them the info they requested about a month ago but haven't heard from them since.



VirtualWill 10 posts since

Feb 18, 2009 **8. Re: RDM disks unavailable after ESXi 4 host crash** Nov 2, 2009 1:16 AM

This case is finally over and everything is back to normal.

Too bad I never got to the root of this problem but I did manage to get if fixed either way.

- Rebooting the hosts didn't help nor did rebuilding Host1
- I shut down both of the vm's with the rdm disks (now running on Host2).
- While the vm's were still on Host2, removed the four disks causing the problem
- Migrated both of those vm's to now rebuilt Host1
- Recreated the RDM disks on Host1
- Tried migrating VM2 to Host2 but unable to do so because of the disks

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- Rebuilt Host2
- Migrated VM2 to Host2 successfully
- VM1 started successfully on Host1, VM2 started successfully on Host2