

Re: Windows 2003/SQL 2000 Cluster SAN Migration

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.clustering/2005-04/msg00104.html>

- *From:* "Cyberstorme" <Cyberstorme@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 4 Apr 2005 10:55:02 -0700
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Loay/Mike,

Isn't the W2K3 (backward ported) Cluster Server Recovery tool designed to make this task easier? We have used the tool in a Test environment to move a cluster to a SAN. It works very well. The tool enables you to use a GUI without having to worry about the intricacies of executing the CUI commands to re-establish the dependencies, signatures etc.

"Loay Shbeilat [MS]" wrote:

- > Hi Opus,
- >
- > I have done this before and it works fine :-) Plz try the following steps –
- > Assumptions (if any of those assumptions are not there, then plz advice and
- > i will try to find the appropriate solution)
- > 1) The machines will not change
- > 2) The storage will be changed
- > 3) the 2 SANs will be accessible to the cluster at the same time, for the
- > migration purpose. After the migration you can pull out the old storage.
- > 4) assume the Old disk drive is O: and the New disk Drive is N:
- >
- >
- > Steps I followed:
- > 1) Backed the disks up :)
- > 2) Backed the disk signatures/geometry. You can use "confdisk.exe" to do
- > that.
- > 3) On the new SAN create a new partition that you will use for the SQL. Name
- > the disk N:\
- > 4) Create a new Disk Resource for the new disk and have that in the SQL
- > group.
- > 5) Offline the SQL resource (so that no one would be writing to the disk
- > anymore)
- > 6) Keep the disk resources online.
- > 7) using a copy utility replicate the data from the old drive to the new
- > drive, make sure to copy the correct ACL's/attributes/etc...
- > The " /o " switch with xcopy does copy the ACL's. You can also ntbackup then
- > restore the data. Use whatever tool you are comfortable with to replicate

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> the data.
> 8) Now Add the new disk as a dependency for the SQL resource. The SQL
> resource at this point of time will have 2 disk dependencies: Disk O: and
> Disk N:
> 9) Go to disk management. Rename the Old disk drive from O: to X:
> 10) Rename the New disk drive from N: to O:
> 11) back to cluster administrator, rename the resource from "Disk O:" to
> "Disk X:"
> 12) rename the resource from "Disk N:" to "Disk O:"
> 13) remove the "Disk X:" dependency from the SQL resource. Now it should
> only have one disk dependency "disk O:"
> 14) I would go to the advanced properties of the SQL resource, and set it to
> "Do not restart". (just in case things dont go well, you dont want the
> resource failing back in forth between the nodes)
> 15) try to online the SQL resource
>
>
> Does it work?
> Then go back to Advanced tab in properties and set it to "Restart"
>
>
> Does it fail?
> Go the event viewer and check the system and the application events. Does it
> shed any light on the problem?
>
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> --
> Thanks,
> Loay Shbeilat
> MSCS Admin Tools STE
>
> "This posting is provided "AS IS" with no warranties, and confers no
> rights."
>
> "Opus" <closed@xxxxxxx> wrote in message
> <[news:e\\$ZZdhpNFHA.3704@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:e$ZZdhpNFHA.3704@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)
> >I have a Window 2003 Ent. Server Cluster running SQL 2000. We need to move
> >of our current SAN to a new SAN and I don't want to do a full reinstall so
> >I was looking for an easy way to do it. This site
> >http://expertanswercenter.techtargget.com/eac/knowledgebaseAnswer/0.295199.sid63_gci981988.00.html
> >has an approach but it only partly work, i.e. I was able to move the quorum
> >just fine but not the data drives, basically on step 14 my old drives
> >popped right back in place with their original drive letters back. I'm
> >guessing its because on a Win2003 Cluster the drive signatures can't just
> >be deleted out of the registry like it says in step 12. So does anyone
> >know the steps to change/move my data drives?
> >
> > Here is a copy of the steps from that site in case it goes down:
> > 1.. In the new storage array, pre-configure your LUNs to match your
> > current environment. Set any LUN security or switch zoning to provide

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>> access to an HBA in nodeB of the cluster.
>> 2.. Insert a new HBA into NodeB in the cluster. If the server is already
>> dual homed, connect one HBA to a SAN port that has access to the new
>> storage array.
>> 3.. Update the HBA drivers to the correct revision for the HBA connected
>> to the new array.
>> 4.. Reboot nodeB, and verify access to the new LUNs via NT disk admin, or
>> on Win2k, under the manage disks MMC. Create an NTFS partition on the LUN
>> configured for the cluster quorum resource in the new array, and do a
>> quick format.
>> 5.. Migrate ALL Cluster resources to nodeB.
>> 6.. In cluster admin, create a new disk resource for the new quorum disk,
>> and move quorum to the new disk. The cluster will now have all application
>> resources on the old array, and have quorum configured for the new array.
>> 7.. Install or move an HBA in nodeA, update the driver, and verify
>> connection to the new LUNs. Shut down nodeA and power it off.
>> 8.. On nodeB, go to control panel, and stop the cluster resources
>> (Cludisk, and cluster service) and set the services to start manually.
>> 9.. On nodeB, run disk administrator and document the disk labels, drive
>> letters, and physical disk numbers for the existing cluster resource
>> disks.
>> 10.. On nodeB, run the registry editor and go to HKLM/Current control
>> set/services/Clusdisk, and make note of the actual disk signatures
>> assigned to the cluster resources. Document the physicaldisk and drive
>> numbers for these drives. You will need this information so you don't
>> delete the new quorum disk signature by mistake in step 12.
>> 11.. On NodeB run disk administrator, and create a mirror set between the
>> old resource disks and the new LUNs in the new array. The mirrors will now
>> synchronize, and should take between 50–60GB per hour to complete. Once
>> complete, remove the connection to the old disk array on nodeB.
>> 12.. Reboot nodeB, go into registry editor, and delete the disk
>> signatures from the ClusDisk registry entry for all disks EXCEPT THE
>> QUORUM RESOURCE!!, if you delete the quorum disk signature by mistake, you
>> are out of luck. Use the information gathered in steps 9 and 10 to
>> determine the disk signature of the quorum disk. (If the signatures are
>> not deleted here, you will never be able to get back to the same drive
>> letters as the original cluster disks!)
>> 13.. On nodeB, run disk administrator, and re-letter the new drives to
>> the original drive letters documented in step 9. Go to control panel, and
>> reset the cluster services to startup automatic.
>> 14.. Reboot nodeB, and verify the cluster comes up normally.
>> 15.. Reboot nodeA, and verify you can fail over resources to nodeA. (when
>> nodeA reboots, it pulls the registry info for the new cluster disks from
>> nodeB. The ClusDisk registry entries are rebuilt automatically by nodeB
>> when it was rebooted). If nodeA has troubles coming up, evict the node
>> from the cluster, de-install clusters from the node, and then rejoin nodeA
>> back into the cluster with nodeB.
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- ***Follow-Ups:***
 - ◆ ***Re: Windows 2003/SQL 2000 Cluster SAN Migration***
 - ◇ *From:* Mike Rosado [MSFT]

 - ***References:***
 - ◆ ***Windows 2003/SQL 2000 Cluster SAN Migration***
 - ◇ *From:* Opus
 - ◆ ***Re: Windows 2003/SQL 2000 Cluster SAN Migration***
 - ◇ *From:* Loay Shbeilat [MS]

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