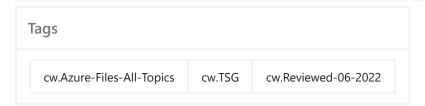
Mount Error 13 Linux VM_Storage

Last updated by | Kevin Gregoire | Oct 27, 2022 at 7:45 AM PDT



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Symptoms

Symptom 1

You receive "Mount error(13)" when you try to mount the share from Linux system:

mount error(13): Permission denied

Symptom 2

You may receive following error messages on Linux system and cannot handle any SMB/CIFS files mounted from Azure Files suddenly.

```
Dec 2 02:16:27 <hostname> kernel: Status code returned 0xc000006d STATUS_LOGON_FAILURE
Dec 2 02:16:27 <hostname> kernel: CIFS VFS: Send error in SessSetup = -13

dmesg|grep -i cifs
....

[ 1672.330303] CIFS: VFS: \\a3testgrs.file.core.windows.net Send error in SessSetup = -13

[ 1672.334886] CIFS: Status code returned 0xc0000016 STATUS_MORE_PROCESSING_REQUIRED

[ 1672.336856] CIFS: Status code returned 0xc000006d STATUS_LOGON_FAILURE

[ 1672.336864] CIFS: VFS: \\a3testgrs.file.core.windows.net Send error in SessSetup = -13

[ 1673.012783] CIFS: Status code returned 0xc0000016 STATUS_MORE_PROCESSING_REQUIRED

[ 1673.015360] CIFS: Status code returned 0xc0000016 STATUS_LOGON_FAILURE

[ 1673.015372] CIFS: VFS: \\a3testgrs.file.core.windows.net Send error in SessSetup = -13

[ 1675.143255] CIFS: Status code returned 0xc0000016 STATUS_MORE_PROCESSING_REQUIRED

[ 1675.145310] CIFS: Status code returned 0xc0000016 STATUS_MORE_PROCESSING_REQUIRED

[ 1675.145310] CIFS: Status code returned 0xc00000016 STATUS_LOGON_FAILURE
```

While the issue in ongoing, if you check the resolved IP for the current mounts and compare it to the current nslookup results for the same storage account, the IPs will be different:

```
cat /proc/mounts
...
//a3testgrs.file.core.windows.net/testsmbwithfailover on /mnt/testsmbwithfailover type cifs (rw,relatime,vers=

# nslookup abc.file.core.windows.net
...
Non-authoritative answer:
a3testgrs.file.core.windows.net canonical name = file.dub21prdstr02b.store.core.windows.net.
Name: file.dub21prdstr02b.store.core.windows.net
Address: 52.239.139.151
```

Causes

Cause 1

If error have "Permission denied", the the issue is caused by a wrong username and/or password. If it have "STATUS_LOGON_FAILURE", check the below causes.

Cause 2

Storage accounts are hosted on storage cluster. For capacity load balancing purpose, this might be migrated to another storage cluster. At that time, DNS will be upgrade so as to redirect to new clsuter. However, Linux SMB client don't aware of this, and still keep communicate previous cluster. In result, that client failed to access to Azure Files. You can confirm this migration in Xportal (navigate to "Account" > "Basic Info") URL: http://aka.ms/xportal

FinalizeMigrateCompleteTime	2021-11-30T00:59:39.8623457Z/td>
MigrationLastPrimaryStam	ty1prdstr01a

Otherwise, you can check migration history with below Kusto query (check "Tenant")

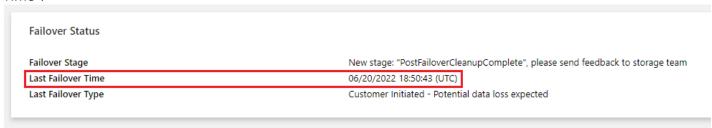
```
cluster('xstore.kusto.windows.net').database('xdataanalytics').XStoreAccountPropertiesDaily
| where TimePeriod >= datetime(yyyy-mm-dd hh:mm:ss)
| where Account contains "<storage accountname>" and Subscription == "<subscription ID>"
| summarize arg_min(TimePeriod, *) by Tenant, Account
| project TimePeriod, Tenant, Account
```

Cause 3

Same as the for Cause 2, except the change of the cluster happened as a result of a failover initiated by the customer on the storage account. For this scenario, 'FinalizeMigrateCompleteTime' might not be updated with the failover timestamp, however, you can confirm that from ASC and Xportal by checking the following:

ASC:

- 1. Open ASC and browse to the Storage account.
- 2. Under the 'Summary' tap, scroll down to 'Failover Status' and check the timestamp of the "Last Failover Time":



XPortal:

- 1. Navigate to "Account" > "Basic Info"
- 2. Check the value of 'GeoReplicationStateTransitionTime'.

Workarounds

Workaround for causes 2 & 3

- Reboot the Linux machine/VM.
- * For AKS: delete original pod, and smb remount would happen with new azure file server IP. Source 🖸

Solutions

Solution for cause 1

Verify the username and password. The username should be the name of the storage account, and the password has to be the correct Storage Account key.

Example command:

sudo mount -t cifs //StorageAccountName.file.core.windows.net/ShareName /mnt bkp -o vers=3.0,user=StorageAccou

More Information: Mount SMB Azure file share on Linux 2

Solution for Cause 2 & 3

This is know kernel bug which is addressed in following patches.

- https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?
 id=4e456b30f78c429b183db420e23b26cde7e03a78 ☑
- https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?
 id=506c1da44fee32ba1d3a70413289ad58c772bba6 ☑
- https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?
 id=4ac0536f8874a903a72bddc57eb88db774261e3a ☑
- https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?
 id=7be3248f313930ff3d3436d4e9ddbe9fccc1f541
- https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?
 id=869da64d071142d4ed562a3e909deb18e4e72c4e

RCA (Customer ready message)

RCA for Cause 2

In Azure Storage customer accounts are hosted on storage clusters, where in each cluster we have 100s of serve Several fixes for the Linux SMB kernel client in this regard were recently submitted to the mainline Linux ker We apologize for the inconvenience.



RCA for Cause 3

Due to a bug in the Linux SMB kernel client, the redirection from the old stamp to the new stamp did not take Several fixes for the Linux SMB kernel client in this regard were recently submitted to the mainline Linux ker As a mitigation, the customer should be able to get continue access to the file shares of the migrated account Azure files engineering is already actively working with the Linux open source community and various Linux dis Once the backports are included, the customer should be able to get the updated kernel with the fixes as a par



References

- https://portal.microsofticm.com/imp/v3/incidents/details/271664167/home
- https://supportability.visualstudio.com/AzureLinuxNinjas/ wiki/wikis/AzureLinuxNinjas/214374/How-to-troubleshoot-CIFS-VFS-Send-error-in-SessSetup-13-in-SUSE

Need additional help or have feedback?

To engage the Azure Files All Topics SMEs	To provide feedback on this page	To provide kudos on this page
Please reach out to the Azure Files All Topics SMEs AVA channel via Teams.	Use the Azure Files All Topics Feedback form to submit detailed feedback on improvements or new content ideas for Azure Files All Topics.	Use the Azure Files All Topics Kudos form to submit kudos on the page. Kudos will help us improve our wiki content overall!
Make sure to use the Ava process for faster assistance.	Please note the link to the page is required when submitting feedback on existing pages! If it is a new content idea, please put N/A in the Wiki Page Link.	Please note the link to the page is required when submitting kudos!