

# Scalable File Service Turbo

## Troubleshooting

**Issue** 01  
**Date** 2025-01-09



**Copyright © Huawei Cloud Computing Technologies Co., Ltd. 2025. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Cloud Computing Technologies Co., Ltd.

## **Trademarks and Permissions**



HUAWEI and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

## **Notice**

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

## **Huawei Cloud Computing Technologies Co., Ltd.**

Address: Huawei Cloud Data Center Jiaoxinggong Road  
Qianzhong Avenue  
Gui'an New District  
Gui Zhou 550029  
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

---

## Contents

---

<b>1 Mounting a File System Timed Out.....</b>	<b>1</b>
<b>2 Mounting a File System Failed.....</b>	<b>2</b>
<b>3 File System Performance Was Poor.....</b>	<b>4</b>
<b>4 Creating an SFS Turbo File System Failed.....</b>	<b>6</b>
<b>5 File System Automatically Unmounted.....</b>	<b>8</b>
<b>6 A Client Server Failed to Access a File System.....</b>	<b>9</b>
<b>7 Abnormal File System Status.....</b>	<b>10</b>
<b>8 Data Fails to Be Written into a File System Mounted to ECSs Running Different Types of Operating Systems.....</b>	<b>11</b>
<b>9 Writing to a File System Failed.....</b>	<b>13</b>
<b>10 Error Message "wrong fs type, bad option" Was Displayed During File System Mounting.....</b>	<b>15</b>

# 1 Mounting a File System Timed Out

---

## Symptom

When a file system was mounted to a cloud server using the **mount** command, message **timed out** was returned.

## Possible Causes

- Cause 1: The network is not stable.
- Cause 2: The network connection is abnormal.

## Fault Diagnosis

Rectify network faults and mount the file system again.

## Solution

- Cause 1 and Cause 2: The network is not stable or the network connection is abnormal.  
Remount the file system after the network issue is addressed.
  - If the mount is successful, no further action is required.
  - If the mount fails, contact technical support.

# 2 Mounting a File System Failed

---

## Symptom

When a file system was mounted to a cloud server using the **mount** command, message **access denied** was displayed on the server.

## Possible Causes

- Cause 1: The file system has been deleted.
- Cause 2: The server and the file system are not in the same VPC.
- Cause 3: The shared path specified in the **mount** command is incorrect.
- Cause 4: The DNS configuration of the server is incorrect.
- Cause 5: The subdirectory used for mounting is not found.

## Fault Diagnosis

Take troubleshooting measures based on possible causes.

## Solution

- Cause 1: The file system has been deleted.  
Log in to the console and check whether the file system has been deleted.
  - If yes, create a file system or select an existing file system to mount.  
Ensure that the server and the file system are in the same VPC.
  - If no, go to Cause 2.
- Cause 2: The server and the file system are not in the same VPC.  
Log in to the console and check whether the server and the file system are in the same VPC.
  - If yes, go to Cause 3.
  - If no, select a file system that is in the same VPC as the server.
- Cause 3: The shared path specified in the **mount** command is incorrect.
  - a. Log in to the console and check whether the shared path specified in the **mount** command is the same as that shown on the console.
  - b. If the shared path specified in the **mount** command is incorrect, correct it and run the command again.

- Cause 4: The DNS configuration of the server is incorrect.  
Run the following command to check whether the DNS is correct:  
**nslookup** *<File system domain name>*  
Check whether the resolved IP address is in the 100.x.x.x network range.
  - If yes, the DNS configuration is correct. Check other possible causes.
  - If no, the DNS configuration is incorrect. Reconfigure DNS by referring to [Configuring DNS](#).
- Cause 5: The subdirectory used for mounting is not found.  
Mount the file system root directory. Then, create a subdirectory, unmount the file system, and [mount the file system using the created subdirectory](#).

# 3 File System Performance Was Poor

## Symptom

Data was written slowly to a file system, the file system performance cannot meet service requirements, or file transfer was slow.

## Fault Diagnosis

Possible causes are described in order of how likely they are to occur.

If the fault persists after you have ruled out one cause, move on to the next one.

Figure 3-1 Fault diagnosis

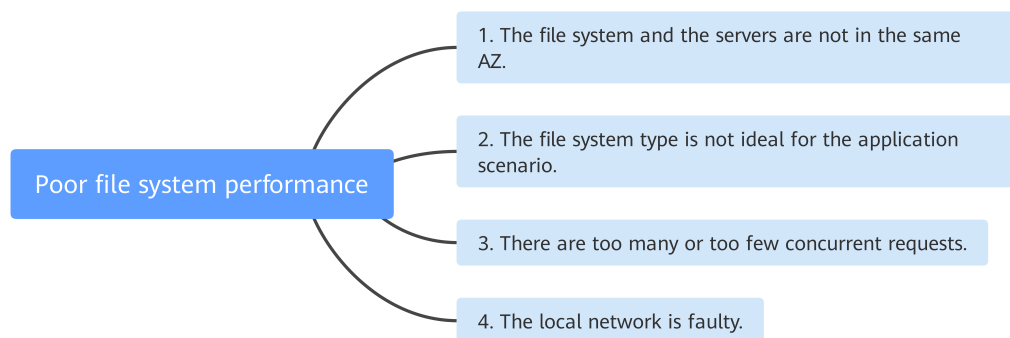


Table 3-1 Fault diagnosis

Possible Cause	Solution
The file system and the servers are not in the same AZ.	Create a file system in the same AZ as the servers, migrate the data from the original file system to the new file system, and mount the new file system to the servers.
The file system type is not ideal for the application scenario.	Select an appropriate file system type based on your workloads. For details, see <a href="#">File System Types</a> .

Possible Cause	Solution
There are too many or too few concurrent requests.	Too many or too few concurrent requests may deteriorate the file system performance. <a href="#">Submit a service ticket.</a>
The local network is faulty.	Rectify the network fault.

## Submitting a Service Ticket

If the problem persists, [submit a service ticket.](#)



# 4 Creating an SFS Turbo File System Failed

## Symptom

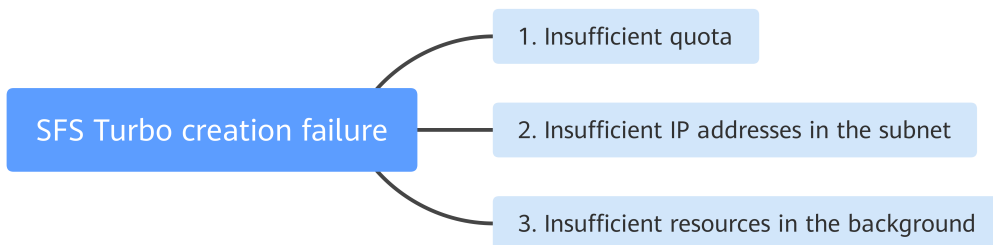
An SFS Turbo file system failed to be created.

## Fault Diagnosis

Possible causes are described in order of how likely they are to occur.

If the fault persists after you have ruled out one cause, move on to the next one.

**Figure 4-1** Fault diagnosis



**Table 4-1** Fault diagnosis

Possible Cause	Solution
Insufficient quota	The file system quota has been used up. <b>Submit a service ticket</b> to increase the quota.
Insufficient IP addresses in the subnet	Change the subnet or free up IP addresses in the subnet.
Insufficient resources in the background	Background resources, such as compute and storage resources, have reached the upper limit. <b>Submit a service ticket</b> for technical consultation.

## Submitting a Service Ticket

If the problem persists, [submit a service ticket](#).

# 5 File System Automatically Unmounted

---

## Symptom

File system was automatically unmounted and needs to be mounted again.

## Possible Causes

Auto mount is not configured. The file system is automatically unmounted after the client server is restarted.

## Solution

Configure auto mount for the client server so that the file system will be automatically mounted to the server after the server restarts. For details, see [Mounting a File System Automatically](#).

## Submitting a Service Ticket

If the problem persists, [submit a service ticket](#).

# 6 A Client Server Failed to Access a File System

---

## Symptom

Access from a client server to a file system was denied. All services on the server were abnormal.

## Possible Causes

The file system fails to be mounted to the server after being forcibly unmounted.

## Fault Diagnosis

Take troubleshooting measures based on possible causes.

## Solution

The file system fails to be mounted to the server after being forcibly unmounted.

1. Restart the server.
2. Check whether the file system can be properly mounted and accessed.
  - If yes, no further action is required.
  - If no, contact technical support.

# 7 Abnormal File System Status

---

The following table describes the abnormal status of a file system and how to restore the file system to normal.

**Table 7-1** Measures for handling abnormal file system status

<b>Abnormal Status</b>	<b>Suggestion</b>
Expansion error	When the file system is in the Expansion error status, it can automatically recover to the available status. If the status cannot be restored to available, contact the administrator.

# 8 Data Fails to Be Written into a File System Mounted to ECSs Running Different Types of Operating Systems

---

A file system can be mounted to a Linux ECS and a Windows ECS. However, data may fail to be written to the file system.

## Symptom

If a file system is mounted to a Linux ECS and a Windows ECS, on the Windows ECS, data cannot be written to the files created by the Linux ECS.

## Possible Causes

A shared NFS file system belongs to the root user and cannot be modified. The write permission is granted to a user only when both the values of UID and GID of the user are **0**. You can check your UID using Windows commands. If the value of UID is, for example, **-2**, you do not have the write permission.

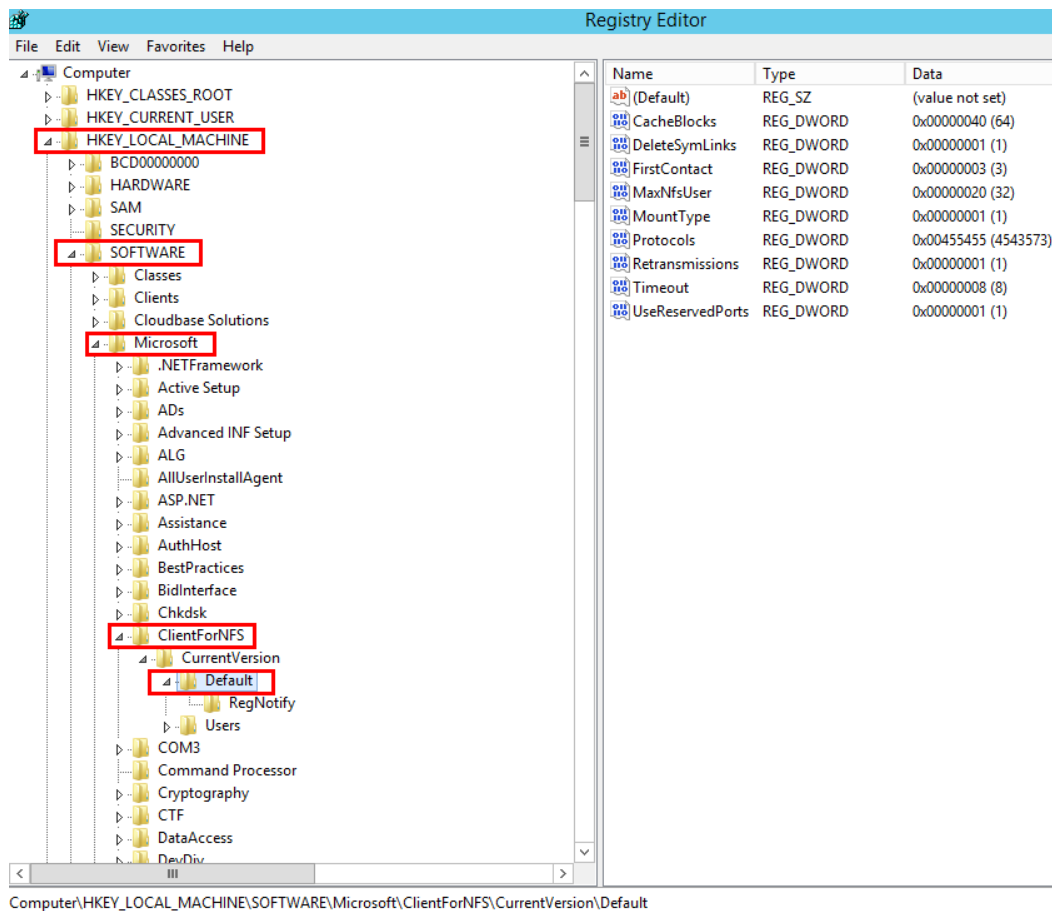
## Fault Diagnosis

To address this problem, modify the registry and change both UID and GID values to **0** for NFS accesses from Windows.

## Solution

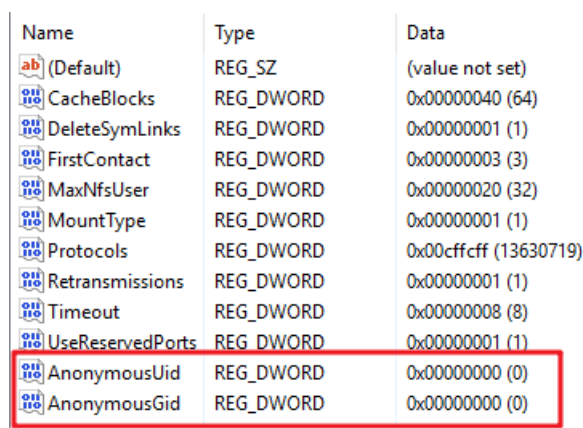
- Step 1** Choose **Start > Run** and enter **regedit** to open the registry.
- Step 2** Enter the **HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\ClientForNFS\CurrentVersion\Default** directory. [Figure 8-1](#) shows an example of the directory.

Figure 8-1 Entering the directory



**Step 3** Right-click the blank area and choose **New > DWORD Value** from the shortcut menu. Set **AnonymousUid** and **AnonymousGid** to **0**. Figure 8-2 shows a successful operation.

Figure 8-2 Adding values



**Step 4** After modifying the registry, restart the server for the modification to take effect.

----End

# 9 Writing to a File System Failed

---

## Symptom

Data failed to be written to the file system mounted to ECSs running the same type of OS.

## Possible Causes


The ECS security group configuration is incorrect. Specifically, the port used to communicate with the file system is not enabled.

## Fault Diagnosis

Check whether the port of the ECS is enabled and correctly configure the port on the security group console.

## Solution

**Step 1** Log in to the ECS console.

1. Log in to the console.
2. Click  in the upper left corner and select a region.
3. Choose **Service List > Compute > Elastic Cloud Server**.

**Step 2** On the displayed page, select the target ECS to go to the ECS details page.

**Step 3** Click the **Security Groups** tab and select the target security group. Click **Manage Rule** to go to the security group console.

**Step 4** On the displayed page, click the **Inbound Rules** tab and click **Add Rule** to open the **Add Inbound Rule** page, as shown in [Figure 9-1](#). Add rules as follows:

After an SFS Turbo file system is created, the system automatically enables the security group ports required by NFS. This ensures that the SFS Turbo file system can be successfully mounted to the ECSs. The inbound ports required by NFS are ports 111, 2049, 2051, 2052, and 20048. If you need to change the enabled ports, go to the VPC console, choose **Access Control > Security Groups**, locate the target security group, and change the ports.



You are advised to use an independent security group for an SFS Turbo file system to isolate it from service nodes.

**Figure 9-1** Add Inbound Rule

**Add Inbound Rule** [Learn more about security group configuration.](#) ×

**!** Some security group rules will not take effect for ECSs with certain specifications. [Learn more](#)  
If you select IP address for Source, you can enter multiple IP addresses in the same IP address box. Each IP address represents a different security group rule.

Security Group **default**

You can import multiple rules in a batch.

Priority	Action	Type	Protocol & Port	Source	Description	Operation
1-100	Allow	IPv4	Protocols/TCP (Custo... Example: 22 or 22,24 or 22-31	IP address		<a href="#">Replicate</a>   <a href="#">Delete</a>

+ Add Rule

Cancel OK

**Step 5** Click **OK**. Access the file system again for verification.

**----End**

# 10 Error Message "wrong fs type, bad option" Was Displayed During File System Mounting

---

## Symptom

The message "wrong fs type, bad option" was displayed when you run the **mount** command to mount a file system to a Linux ECS.

## Possible Causes

An NFS client is not installed on the Linux ECS. That is, the **nfs-utils** software package is not installed before you execute the **mount** command.

## Fault Diagnosis

Install the required **nfs-utils** software package.

## Solution

### NOTE

Refer to the following steps if your clients run CentOS, Red Hat, Oracle Enterprise Linux, SUSE, EulerOS, Fedora, or OpenSUSE. For other OSs, see [Mounting an NFS File System to ECSs \(Linux\)](#).

**Step 1** Log in to the ECS and run the following command to check whether the **nfs-utils** package is installed. If no command output is returned, the package is not installed.

```
rpm -qa|grep nfs
```

**Figure 10-1** Checking whether the software package has been installed

```

dmesg | tail or so.
[root@bcd ~]# rpm -qa | grep nfs
[root@bcd ~]# yum list | grep nfs
libnfsidmap.i686                0.25-15.el7                base
libnfsidmap.x86_64              0.25-15.el7                base
libnfsidmap-devel.i686         0.25-15.el7                base
libnfsidmap-devel.x86_64      0.25-15.el7                base
nfs-utils.x86_64                1:1.3.0-0.33.el7_3         updates
nfs4-acl-tools.x86_64          0.3.3-15.el7               base
nfsometer.noarch               1.7-1.el7                  base
    
```

**Step 2** Install the nfs-utils software package.

```
yum -y install nfs-utils
```

**Figure 10-2** Executing the installation command

```

[root@bcd ~]# yum -y install nfs-utils.x86_64
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
Resolving Dependencies
--> Running transaction check
--> Package nfs-utils.x86_64 1:1.3.0-0.33.el7_3 will be installed
--> Processing Dependency: libtirpc >= 0.2.4-0.7 for package: 1:nfs-utils-1.3.0-0.33.el7_3.x86_64
--> Processing Dependency: gssproxy >= 0.3.0-0 for package: 1:nfs-utils-1.3.0-0.33.el7_3.x86_64
    
```

**Figure 10-3** Successful installation

```

Installed:
nfs-utils.x86_64 1:1.3.0-0.33.el7_3

Dependency Installed:
gssproxy.x86_64 0:0.4.1-13.el7                keyutils.x86_64 0:1.5.8-3.el7                libbasicobjects.x86_64 0:0.1.1-27.el7
libcollection.x86_64 0:0.6.2-27.el7             libevent.x86_64 0:2.0.21-4.el7                libini_config.x86_64 0:1.3.0-27.el7
libnfsidmap.x86_64 0:0.25-15.el7                 libpath_utils.x86_64 0:0.2.1-27.el7                libref_array.x86_64 0:0.1.5-27.el7
libtalloc.x86_64 0:2.1.6-1.el7                libtevent.x86_64 0:0.9.28-1.el7               libtirpc.x86_64 0:0.2.4-0.8.el7
libverto-tevent.x86_64 0:0.2.5-4.el7           quota.x86_64 1:4.01-14.el7                  quota-nls.noarch 1:4.01-14.el7
rpcbind.x86_64 0:0.2.0-38.el7                 tcp_wrappers.x86_64 0:7.6-77.el7
Complete!
    
```

**Step 3** Run the **mount** command again to mount the file system to the ECS.

```
mount -t nfs -o vers=3,timeo=600,noresvport,nolock,tcp <Shared path> <Local path>
```

**Step 4** View the mounted file system.

```
mount -l
```

If the command output contains the following information, the file system has been mounted:

```
example.com:/share-xxx on /local_path type nfs (rw,vers=3,timeo=600,nolock,addr=)
```

----End