Alibaba Cloud
Network Attached Storage

Limits

Issue: 20181214

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Generic conventions

Table -1: Style conventions

Style	Description	Example
⛔	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⛔ **Danger:** Resetting will result in the loss of user configuration data.
⚠	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	⚠ **Warning:** Restarting will cause business interruption. About 10 minutes are required to restore business.
📋	This indicates warning information, supplementary instructions, and other content that the user must understand.	📋 **Note:** Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	📋 **Note:** You can use **Ctrl** + **A** to select all files.
>	Multi-level menu cascade.	**Settings** > **Network** > **Set network type**
Bold	It is used for buttons, menus, page names, and other UI elements.	Click **OK**.
`Courier font`	It is used for commands.	Run the `cd /d C:/windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *`Instance_ID`*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *`[-all│-t]`*
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich` *`{stand │ slave}`*

Contents

1 NAS file system limits

NAS file systems have the following limits:

- The maximum length of the name of a file system is 255 bytes.

- The maximum length of a symbolic link is 4080 bytes.

- The maximum size of a single file is 32 TB.

- NAS does not support mounting file systems across regions.

- The storage capacity of a file system is 1 PB (performance type) and 10 PB (capacity type).

- Each account can create up to 10 file systems.

- Each file system can create up to 2 mount points.

- Currently, mount points in Classic networks only allow access from ECS instances that are in the same account with them. These mount points do not support default permission groups. You can only add single IP addresses instead of CIDR blocks when creating security group rules for these mount points.

- A file system can be simultaneously mounted on and accessed by up to 10,000 computing nodes.

- For the NFSv3 protocol, if the file UID or GID exists in a Linux local account, then the corresponding username or group name is displayed based on the mapping relation of the local UID and GID. If the file UID or GID does not exist in the local account, then the UID or GID is displayed.

- For the NFSv4 protocol, if the version of the local Linux kernel is earlier than 3.0, the UID and GID of all files are displayed as nobody. If the version is later than 3.0, then the display rule is the same as that of the NFSv3 protocol.

- If you use the NFSv4 protocol to mount a file system, and the version of your Linux kernel is earlier than 3.0, we recommend that you do not run the chown or chgrp command on a file or directory. Otherwise, the UID and GID of the file or directory are changed to nobody.

2 SMB file system limits

This section describes SMB file system limits.

SMB file systems have the following limits:

- SMB file systems support SMB protocol version 2.0 and later, and Windows Vista, Windows Server 2008 and later versions, but do not support Windows XP, Windows Server 2003 and earlier versions. Compared with SMB 2.0 and later versions, SMB 1.0 has performance and function vulnerabilities, for example, Windows support for SMB 1.0 and earlier versions are no longer maintained by Microsoft.

- Access method: Each mount point only provides one SMB share named myshare. You can use \\mount_point\myshare to access SMB shares. Multiple virtual hosts in an Alibaba Cloud Classic or VPC network can simultaneously access the same SMB file system.

- Access control lists are available at file system level, but not at file or directory level.

3 Features not supported by SMB

This section describes features that are not supported by SMB file systems.

SMB file systems do not support the following features:

- Access from Linux clients.
- Access to the same file system using both NFS and SMB protocols or access to the SMB file system using a wide area network.
- Extended file attributes and client-side caching based on oplocks or leases.
- IOCTL/FSCTL operations such as sparse files, file compression, NIC status queries, and reparse points.
- Alternate data streams.

4 Features not supported by NFS

This section describes the features that are not supported by NFS.

NFS file systems do not support the following features:

- NFSv4.0 does not support the following attributes: FATTR4_MIMETYPE, FATTR4_QUO TA_AVAIL_HARD, FATTR4_QUOTA_AVAIL_SOFT, FATTR4_QUOTA_USED, FATTR4_TIM E_BACKUP, and FATTR4_TIME_CREATE. An attempt to set these attributes results in a NFS4ERR_ATTRNOTSUPP error displayed in /var/log/messages.

- NFSv4.1 does not support the following attributes: FATTR4_DIR_NOTIF_DELAY, FATTR4_DIR_NOTIF_DELAY, FATTR4_DACL, FATTR4_CHANGE_POLICY, FATTR4_FS_ STATUS, FATTR4_LAYOUT_HINT, FATTR4_LAYOUT_TYPES, FATTR4_LAYOUT_ALIGNM ENT, FATTR4_FS_LOCATIONS_INFO, FATTR4_MDSTHRESHOLD, FATTR4_RET ENTION_GET, FATTR4_RETENTION_SET, FATTR4_RETENTEVT_GET, FATTR4_RET ENTEVT_SET, FATTR4_RETENTION_HOLD, FATTR4_MODE_SET_MASKED, FATTR4_FS_CHARSET_CAP. An attempt to set these attributes results in a NFS4ERR_AT TRNOTSUPP error displayed in /var/log/messages.

- NFSv4 does not support the following operations: OP_DELEGPURGE, OP_DELEGRETURN , and NFS4_OP_OPENATTR. An attempt to set these attributes results in a NFS4ERR_AT TRNOTSUPP error displayed in /var/log/messages.

- Currently, NFSv4 does not support delegation.