You can capture data directly from a Network File System (NFS) export using an NFS capture. Using Transfer Appliance Capture Utility, an appliance capture pulls data from a workstation instead of pushing it. From the point of view of the NFS server (the workstation), Transfer Appliance is the NFS client. See Data capture (/transfer-appliance/docs/2.0/data-capture) for more information on data capture options.

Transfer Appliance supports NFSv3 and NFSv4 for appliance capture. Using Kerberos with NFS is not supported.

You need to know the following information before you can perform an NFS capture:

- The IP address for Transfer Appliance, which is presented when you set up Transfer Appliance (/transfer-appliance/docs/2.0/displaying-network-configuration).
- The IP address must not change throughout the data capture process. For example, use a static IP address.
- The capture user credentials, which are initially supplied to you by Google. You can change the capture password (/transfer-appliance/docs/2.0/resetting-password).

In addition, make sure that:

- You have prepared for data transfer (/transfer-appliance/docs/2.0/preparing-data-transfer).
- You are using the correct data transfer method (/transfer-appliance/docs/2.0/choosing-capture-method).
- Your network meets Transfer Appliance requirements (/transfer-appliance/docs/2.0/preparing-data-transfer#prepare-network).
- The appliance is set unpacked and configured (/transfer-appliance/docs/2.0/preparing-to-unpack).

Before you can mount the NFS share on Transfer Appliance, export the NFS share with the `no_root_squash export` option and specify the IP address of the Transfer Appliance. Delete the

Transfer Appliance export configuration file after the data transfer is complete.

The NFS share must be exported to Transfer Appliance using the default security mode. Kerberos security mode isn't rted by Transfer Appliance.

1. On the server where the data resides, open a terminal.
2. Install NFS:

3. Export the directories containing the data you want to capture:

**Caution:** Only use NFS capture if you are confident in the security of your network topology; otherwise, use another data capture method (/transfer-appliance/docs/2.0/data-capture). If you decide to use NFS capture, it is recommended that you use a static IP address or DHCP reservation to ensure Transfer Appliance IP doesn't change during data capture. Once you complete the data capture:

- Delete the NFS share or roll back the edits you made to the share.
- Revert the access permissions you granted to the IP address for the NFS capture.

1. Open Transfer Appliance Web User Interface.
2. Select **NFS** from the **Data Capture** menu.

   The **NFS Capture** window appears and displays any currently mounted NFS exports.
3. Click **Add Mount Point**.
4. For the **NFS Server Name or IP Address**, enter the IP address of the source server or workstation. This is the address of the system on which you created the NFS export.
5. For the **NFS Share Path**, enter the path of the export. This path is the same path that was specified when you created the export on the source server or workstation.
6. For **Advanced Mount Parameters**, you can optionally specify advanced options for accessing the share as a comma-separated list. If your user account needs different permissions for data access on that server, consider user ID (UID) mapping. For more information about NFS options, see nfs(5) - Linux man page (https://linux.die.net/man/5/nfs).

7. Click **Mount**.

   If the NFS share mounts successfully, it appears on the **NFS Capture** screen under **Mount Points**, indicating that the share is available for capture.

Before you start an NFS capture, make sure you have the following permissions to your data source:

- Read and execute permissions for folders.
- Read permissions for files.

If you are only capturing data that you own, you already have the required file and folder permissions. If you want to capture data owned by other people, contact your IT administrator and ask for an account that grants you access to the data. If you are in IT administrator in charge of moving other people's data, use a backup operator or service account that has read access to all of the data.

If you specify a directory for capture that has been previously captured, Transfer Appliance recognizes it and presents you with options to capture all data or only skipped files.

It is recommended that you create no more than 1,000 capture jobs. If the number of capture jobs exceeds 1,000, Tra
nce and the rehydration process can encounter degraded performance.

1. Open the Transfer Appliance Web User Interface.
2. Select **NFS** from the **Data Capture** menu. The NFS Capture window appears and displays currently mounted NFS exports.
3. Select a mount point and folder for capture.
4. Click **Capture**.
5. Enter a meaningful job name. The job name is used to identify the capture job and the files it contains.
6. If you want to exclude file symbolic links, click **Exclude symlinks**.
7. Click **OK**.

   A capture job is initiated. You can monitor jobs using the **Jobs Monitor** pane in the Transfer Appliance web interface.

★ **Note:** You might notice a difference between the number of captured files and the total number of files. The discrepancy occurs because of hidden backup files sometimes generated by Unix editors. To disable these hidden files, enter `unset backup` in your `~/.nanorc`. See [`man nanorc`] (https://linux.die.net/man/5/nanorc) for more information.

After each NFS capture completes, unmount the corresponding NFS export.

1. Open Transfer Appliance Web User Interface.
2. Select **NFS** from the **Data Capture** pane.

   The **NFS Capture** window appears and displays currently mounted NFS exports.
3. Select the mount point you want to unmount.
4. Click **Unmount**.
5. Click **OK**.

To perform other types of parallel data capture tasks, follow these instructions on a separate workstation or Transfer Appliance:

- Performing a Microsoft Windows Workstation Capture (https://cloud.google.com/transfer-appliance/docs/2.0/capturing-data-windows)
- Performing a Linux Workstation Capture (https://cloud.google.com/transfer-appliance/docs/2.0/capturing-data-linux)
- Exporting an NFS Share (https://cloud.google.com/transfer-appliance/docs/2.0/exporting-nfs-share)

If your data size exceeds the capacity of a single Transfer Appliance, capture your data using multiple appliances in succession (/transfer-appliance/docs/2.0/performing-serial-captures).

To monitor data capture jobs, see Monitoring Data Capture Jobs (/transfer-appliance/docs/2.0/monitoring-capture-jobs).

If you are done capturing data, see Preparing and Shipping Transfer Appliance (/transfer-appliance/docs/2.0/shipping-appliance).