NFS allows a system to share directories and files with others over a network. By using NFS, users and programs can access files on remote systems almost as if they were local files.

Some of the most notable benefits that NFS can provide are:

* Local workstations use less disk space because commonly used data can be stored on a single machine and still remain accessible to others over the network.
* There is no need for users to have separate home directories on every network machine. Home directories could be set up on the NFS server and made available throughout the network.
* Storage devices such as floppy disks, CDROM drives, and USB Thumb drives can be used by other machines on the network. This may reduce the number of removable media drives throughout the network.

In this article we will learn and configure NFS (Network File System) which is basically used to share the files and folders between Linux systems. This was developed by Sun Microsystems in 1980 which allows us to mount the file system in the network and remote users can interact and the share just like local file and folders.

Mount : The **mount** command serves to attach the filesystem

found on some device to the big file tree

mount /dev/fd0 /mnt/floppy

This command will connect the device "/dev/fd0" (usually the floppy drive) to the directory "/mnt/floppy" so that you can access the files and directories (folders) on the floppy disk in the floppy drive under the "/mnt/floppy" directory.

The directory "/mnt/floppy" is also called the "mount point", which must already exist when this command is executed

* NFS version 4.2 is currently being developed..

**Features of NFS**

* NFS can be configured as a centralized storage solution.

**Centralized storage** is the **storage** of files, data and databases shared between computing servers over a network. Indeed, it is also known as networked

Using a centrally managed server decreases the workload for the administrator in terms of back-ups, adding software that will be shared and computer repair.

* No need of running the same OS on both machines.
* Can be secured with Firewalls.
* It can be shared along with all the flavors of \*nix.
* The NFS share folder can be mounted as a local file system.

All versions of NFS can use **Transmission Control Protocol** (**TCP**) running over an IP network, with NFSv4 requiring it. NFSv2 and NFSv3 can use the **User Datagram Protocol** (**UDP**) running over an IP network to provide a stateless network connection between the client and server.

**Disadvantages:** Probably the greatest disadvantage is the issue of security. Because NFS is based on RPC, remote procedure calls, it is inherently insecure and should only be used on a trusted network behind a firewall.

The other disadvantage that may become evident is the performance limitations on the network. NFS will slow down during heavy network traffic

**NFS** is the "**Network File System**" for Unix and Linux operating systems. It allows files to be shared transparently **between** servers, desktops, laptops etc. ... **CIFS** is a public or open variation of the Server Message Block Protocol (SMB) developed and used by Microsoft, and it uses the TCP/IP protocol.

n the realm of computers, file systems and network protocols, two names often surface ‘“ the NFS and the CIFS. These acronyms sound too technical, because indeed they are really tech related, not to mention, understanding each concept requires some background in computer networking and its various applications.

To clarify the technicality of this topic, let’s start off with the NFS. The NFS is actually the [acronym](http://www.differencebetween.net/language/difference-between-abbreviation-and-acronym/) for Network File System. This network is practically used for [Linux](http://www.differencebetween.net/technology/difference-between-unix-and-linux/) or [Unix](http://www.differencebetween.net/technology/difference-between-unix-and-linux/) based OS (operating systems), homologous to Microsoft’s Window OS platform. This is a very convenient tool used in computers, because this application is used for remote access. In this sense, the user can take a look, or even change/edit some of his old files in one computer, by using another PC as a remote (the remote computer). In terms of history, this protocol was initially conceptualized and used by Sun Microsystems, back in 1984.

On the contrary, CIFS is its Windows-based counterpart used in file sharing. It is said that CIFS is the more talkative version of the two, in the sense that it always initiates a request for accessing a file on another computer that is connected to the server PC. This server computer will then make a response to the request made by the program.

CIFS is actually the public version of SMB (Server Message Block protocol), invented by Microsoft. This mechanism enables joint sharing of multiple devices such as printers, files, and even serial ports, among various users and administrators. Because this networking is typically used in Windows operated computers, it can also be termed as the Microsoft Windows Network itself. As such, CIFS is often used in big firms and companies who have employees working with lots of [data](http://www.differencebetween.net/language/difference-between-data-and-information/) that needs to be accessed by multiple users.

On a [good](http://www.differencebetween.net/language/difference-between-good-and-well/) note, some of the advantages of CIFS include:

1. Being broader in scope because it is capable of shared access to various applications, such as print, browsing and many others applications.

2. Unicode and high performance in nature.

3. It is also said that CIFS does not have to be used only for Windows.

Although NFS already has many versions under its belt, some of its advantages are:

1. It has a very simple implementation process compared to CIFS’ talkative, response-based nature.

2. It also boasts of a safer file caching.

Overall,

1. NFS is for Linux or Unix based OS, whereas CIFS is used for Windows operating systems.  
2. CIFS is regarded as the more chatty, or talkative network system protocol, when compared to NFS.