NFS

**NFS** is an abbreviation of the **Network File System**. It is a protocol of a distributed file system. This protocol was developed by the [**Sun Microsystems**](https://www.javatpoint.com/sun-microsystems) in the year of 1984.

It is an architecture of the client/server, which contains a client program, server program, and a protocol that helps for communication between the client and server.

It is that protocol which allows the users to access the data and files remotely over the network. Any user can easily implement the NFS protocol because it is an open standard. Any user can manipulate files as same as if they were on like other protocols. This protocol is also built on the ONC RPC system.

This protocol is mainly implemented on those computing environments where the centralized management of resources and data is critical. It uses the [Transmission Control Protocol (TCP)](https://www.javatpoint.com/tcp) and [User Datagram Protocol (UDP)](https://www.javatpoint.com/udp-protocol) for accessing and delivering the data and files.

Network File System is a protocol that works on all the networks of IP-based. It is implemented in that client/server application in which the server of NFS manages the authorization, authentication, and clients. This protocol is used with Apple Mac OS, Unix, and Unix-like operating systems such as Solaris, [Linux](https://www.javatpoint.com/linux-tutorial), FreeBSD, AIX.

Difference Between NFS and CIFS

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| **NFS** | **CIFS** |
| 1. NFS is an abbreviation of the Network File System. | 1. CIFS is an abbreviation of the Common Internet File system. |
| 2. This protocol is used for sharing the files by Unix and Linux Operating systems. | 2. This protocol is used for sharing the files by Windows Operating systems. |
| 3. It is highly scalable. | 3. It is low scalable. |
| 4. The speed of communication is fast. | 4. The speed of communication is medium. |
| 5. The network File system is not a secure protocol. | 5. Common Internet File System is more secure than the Network File System. |
| 6. NFS is not a reliable protocol. | 6. CIFS is a reliable protocol. |
| 7. This protocol does not provide the session. | 7. This protocol provides the sessions. |
| 8. This protocol is easy to implement and set up. | 8. Its implementation is complex. |
| 9. This protocol uses 111 port for both TCP and UDP. | 9. This protocol uses 139 and 445 TCP ports and 137 and 138 UDP ports. |