iQuila

SOFTWARE DEFINED NETWORKS

iQuila FAQ
on Slow File Access When
Accessing Files on a Network Share

iQ22082r1

www.iQuila.com

"I am getting slow transfer speeds when using Windows File Sharing with iQuila".

The Windows file sharing protocol is based on the NetBIOS protocol used in LAN Manager, which is over 10 years old. When Windows file sharing is used between computers on the same segment (with a network delay of 10 milliseconds or less) the protocol allows for fast file transfer speeds.

You may experience slow transfer speeds when uploading or downloading files over a VEN from a remote location in the following cases:

❖ If there is a network delay of 10 milliseconds or higher on the physical network between the two LANs.
❖ If used over the Internet with a network delay of 10 milliseconds or higher, the file transfer throughput decreases.
❖ If the transfer speed or throughput between the LANs is unstable and each packet incurs some packet loss.
❖ Windows file sharing protocol is greatly affected if there is jitter in the network delay between LANs and the throughput between them is often changing.
❖ Your Windows Domain Controller is also a file server and downloads/uploads to that file server are slow.
❖ Not enough throughput over the physical network.
❖ Too high a network delay.

These delays are not due to iQuila. No matter what VPN system is used, the delay over the physical network's lines cannot be reduced due to their physical limitations.

To solve some of these problems, you may need to contact your network administrator or increase your network's bandwidth in order to decrease network delay. Some other possible solutions are listed below and are best attempted by your IT department or network administrator.

On a Windows Domain Controller:

❖ Open [Control Panel] and go to [Administrative Tools].
❖ Open [Local Security Policy] or [Domain Controller Security Policy].
❖ Under [Local Policy] find [Security Options].
❖ Check to see if [Microsoft network server: Digitally sign communications (always).] and [Microsoft network server: Digitally sign communications (if client agrees).] are enabled.
❖ If they are, disable them.
❖ Close out of this program.

At this point you need to restart the Windows Domain Controller. This is best left, you your IT department or network admin, due to the nature of this server. You should notice a big improvement in file transfer speeds after.

When using the Windows File Sharing Protocol on the computer acting as a file server, making the following changes to the registry and restarting it, can significantly improve communication throughput on a network with high delays.

This configuration must be done in a registry editor. Only a system administrator or your IT department should make these changes. Be sure to make a backup of the registry before making any changes.

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\lanmanserver\parameters]
"Size"=dword:00000003
"SizReqBuf"=dword:0000ffff
```