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## **[SMB/CIFS via internet](#)**

by [vermontes](#) » Fri Jul 16, 2010 10:02 am

I installed freenas 0.7.1 and run it with SMB/CIFS. I access the NAS only with Windows 7 64bit PCs, for example \\192.168.2.70\nasdata

The access over LAN works great. But now I want to access the data on the NAS from external over internet and want to use SMB/CIFS (nothing else, no FTP, no other services).

If I try to access the NAS via its IP for example \\88.103.88.109\nasdata (the NAS itself is in DMZ via the router) the Windows-PC displays, that it can't find the NAS.

Are there any hints what is wrong and what I can do? Or is the CIFS protocol only working on LAN and not via internet. But as CIFS is common internet file system, where the word internet is already included, it should work, or not?

Thanks a lot to all your help.

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## **[Re: SMB/CIFS via internet](#)**

by [earendil3](#) » Fri Jul 16, 2010 11:46 am

*vermontes wrote:*I installed freenas 0.7.1 and run it with SMB/CIFS. I access the NAS only with Windows 7 64bit PCs, for example \\192.168.2.70\nasdata

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If I try to access the NAS via its IP for example \\88.103.88.109\nasdata (the NAS itself is in DMZ via the router) the Windows-PC displays, that it can't find the NAS.

You can never do this because LAN and WAN are different domains. Your gateway (Everyone calls it a router but it does much more than just route! With a DHCP server, NAT server [firewall], login capabilities, etc. plus routing it is not just a router.) separates the LAN from the WAN and to connect like what you want, it is typically done through virtual servers and tunnels on one or more ports. It is NEVER a good idea to set a gateway to DMZ as every port is wide open and any bad guy with a port scanner (software that looks for open ports) can get in your LAN. DMZ is used when you need ports open but don't know which ones, for a short period of time and with as few computers on your LAN turned on as possible.

*vermontes wrote:*Are there any hints what is wrong and what I can do? Or is the CIFS protocol only working on LAN and not via internet. But as CIFS is common internet file system, where the word internet is already included, it should work, or not?

I've never heard of it working because it would be wide open to everyone on the Internet. Remember, just because only you know it works doesn't mean no one else will figure it out.

There are several ways to connect to your NAS and files but they must be specific point-to-point setups:

1. FTP is the most common. FreeNAS has an FTP server, enable it and note the port (usually port 21). Open port 21 in your gateway to point to your FreeNAS server (FNS). This would also be good time to set your FNS to a static IP address on your NAS. (I get the FNS NIC's MAC address and set it to the static LAN IP address of my choice, then I set the FNS for DHCP so every time it looks for it's LAN IP address, the DHCP server in the gateway gives it the LAN IP address you picked out - it becomes a static LAN IP address) Then with an FTP client (like Filezilla or WinSCP) you can access your FTP server in the FNS over the Internet through your WAN IP address (best to use dynamic DNS so you don't use possibly changing IP address numbers, one URL is all you need).
2. Same as above but enable encryption for SFTP.
3. By Remote Connection (RC). Enable any Windoze machine on your LAN to accept RC. Set the RC port in the gateway to that computer. Use any Windoze machine with the RC client on the Internet to access your WAN IP address at the RC port. You can now use that RC client to manipulate your LAN Windoze machine as if you are sitting in front of it including access it's Windows Explorer and your FNS.
4. VPN (Virtual Private Networking). Basically you use software to create a "private" network connection over the Internet. Makes it seem your Internet computer is actually part of your LAN. As far as I know there is no free software for this and it still requires an open port to be set in your gateway.

Just as a note, it can be complicated if you try to access computers in your LAN through your gateway from work. Many ports are blocked by businesses firewalls. Hope that helps.

Earendil

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## **[Re: SMB/CIFS via internet](#)**

by [al562](#) » Fri Jul 16, 2010 1:49 pm

Hi Vermontes,

Welcome to [FreeNAS](#) forum.

Please read and follow the [Forum Rules & Guidelines](#) and the [FAQs](#).

By doing so you will:

- Understand what information you should provide when you ask a question or report a problem/bug. By providing all information upfront you will get faster and better answers; that's what you want right?
- Find the answer to your problem in the [FAQs](#) or use the [Advanced search](#) to search the forum.
- Help us understand your problem and allow us to provide an accurate answer/solution without asking additional questions.
- Help the community by keeping the forum clean, focused and professional.
- Remember to use WebGUI Tab> **Help|Report Generator** when creating new topics/threads, it is available if your FreeNAS version > 0.7

Earendil3 gives you good advice, allow me to summarize the most important point.

*vermontes wrote:*I want to access the data on the NAS from external over internet and want to use SMB/CIFS (nothing else, no FTP, no other services).

This is not possible because Microsoft designed the protocol to not be route-able. In other words, what I'm sure most people consider a drawback, MS considers a feature advantage.

Earendil3 has provided some good solutions, let's expand them a bit.

1, 2 & 3 are simple, cheap and easy, you already have everything you need.

4 is good and cheap, but difficult. Probably one of the best ways to implement it is to build your own router/firewall with something like [MOn0Wall](#) or [Vyatta](#) or [DDWRT](#) and then use [OpenVPN](#) to create the connection between the networks. I have used Vyatta and DDWRT for this purpose in the past, I am not sure if the other two offer the exact same options. This solution is not simple, it is best suited for business environments and I get the feeling from the way you pose your question that you are not interested in learning how to build your own router.

There are some more options:

- a. Commercial options, there are a few, I have never used any of them. See [ExpanDrive](#) as one example, there are some others.
- b. Webclient, access to CIFS/SMB resources in your browser. [SSLBridge](#) is one example. Warning SSLBridge is an outdated project with no source code, SourceForge should not allow projects that don't provide source code because they are obviously not Open Source and dangerous. I'm sure you can find other web based clients/servers.
- c. Samba over SSH is probably the next best, cheapest, easiest solution to 1-3 above, you already have most of what is needed. Here are some links you will find helpful:
  - [Samba over SSH -- Opening Windows to UNIX safely and reliably](#)
  - [Tunneling SAMBA Through SSH](#)
  - [Samba over SSH](#)

No matter what you decide to do remember that all of these solutions will run at the slowest link speed. So if you have an average cable broadband service it will probably be no faster than 2Megabit. That means anything but the simplest applications will run slow as dirt. Even listing a large directory tree may take 20 to 40 seconds, if your application requires running any software you are probably best off with remote control, that way the software is actually running on the local PC and you are only transferring data for screen updates over the Internet.

Regards,  
Al