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## Virtual Private Network (VPN) and connecting to NMR network resources

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### What is a VPN?

A virtual private network (VPN) provides a secure connection to the university as if you were directly physically on campus. Your network traffic is encrypted and relatively safe from observation. A VPN can be used with your computer, or your mobile devices. The UofA has it's own VPN. It is safe, easy, and free (see below)

### Why do I need it?

The NMR facility requires users off campus to join the VPN, in order to connect to NMR resources. The VPN reduces the security exposure of the facility, allowing us to confidently permit connections via the VPN and restrict all other external requests. If you're on campus, you do not need to use the VPN, however you can still do so for additional network privacy. Computers on campus using direct ethernet connections are also allowed to connect once groups/users have let us know the computer's network parameters and confirmed anti-virus/OS updates etc. Computers on ethernet can also use the university's VPN.

### How do I get/install/run a VPN?

Go to:

<https://www.ualberta.ca/information-services-and-technology/index.html>

If the link is out of date, feel free to do an internet search for "UofA IST VPN" and it should come up quickly. Follow the instructions for your machine and software.

### How do I get help?

Please contact UofA IST for help with downloading, installing, and/or using the VPN. There are many devices, systems, and software versions.

### Is this all I need to get to my NMR data?

No. This is the first step.

You will need software to help you access your files, e.g. some form of SFTP (secure file transfer protocol) to move files from the NMR servers to your machine/device. Also very convenient is some form of X-windowing software if you decide to work remotely (either home, away, in the lab, etc.) and have the NMR workstations display the NMR software on your machine. SSH (secure shell) is an encrypted command line protocol to remotely access and interact with your data files. Many of the graphical programs use SSH in the background in order to access the information/data.

See our FAQs on those topics.