FAQ: Installing your own applications on SuperMUG-NG

Sometimes you want to install your own software packages from the internet by using git/svn or via an installation script that fetches files via http or ftp. This cannot be done easily due to the restrictions of the supermuc firewall on external connections. We propose the following solutions:

Copy all needed installation files to supermuc

The easiest way to install a software package is to copy all needed files into a directory on SuperMUC-NG, unpack them and run the configure script. Be sure that you have resolved all the dependencies and then you can compile the software and install it in a directory in your home. Most of the time this will include an option like this:

$ ./configure --prefix=/home/<group>/<account>/mydir
$ make
$ make install

This should do the job in most of the cases.

Mount a directory of SuperMUC-NG on your local machine

Another way is to mirror the directory on the supermuc to your local machine (when you are running SUSE SLES11 or another compatible linux) and install the software on your local machine.

This can be done by creating a directory on supermuc in your HOME directory e.g. $HOME/mydir and a directory at your local machine $HOME/mydir and then mounting it. You need sshfs in order to do the mapping on your local machine.

$ sshfs <account>@supzero.lrz.de:/home/<group>/<account>/mydir ./mydir

Then install the software on your local machine in the directory $HOME/mydir. It will be automatically mirrored to the supermuc directory and can then be used there.

Create a tunnel for internet access

In case the last method fails you can create a tunnel via ssh from your local machine to supermuc and use a proxy at your local machine to re-direct internet connections from supermuc to the internet.

Get a proxy software for http connections and unpack it on your local machine.

Then start the local proxy using:

$ python TinyHTTPProxy.py -p 1234

Then create a tunnel to supermuc via:

$ ssh -l <kennung> -R 1234:<your hostname>:1234 skx.supermuc.lrz.de

On SuperMUC-NG, you can set http_proxy or HTTP_PROXY (and also HTTPS_PROXY) to localhost:1234 and have full access to the http protocol. (e.g. firefox etc)