

## To install OpenMPI on your Linux, simply follow these steps:

1. Go to <http://www.open-mpi.org> and download the latest **.tar.gz** package.  
Latest version is **openmpi-3.0.0.tar.gz**.

2. Create a directory to install **OpenMPI**:

```
$ mkdir $HOME/openmpi
```

3. Copy the downloaded file on step 1 into the directory you just created and then go into that directory using following commands:

```
$ cp $HOME/Downloads/openmpi-1.10.0.tar.gz $HOME/openmpi  
$ cd $HOME/openmpi
```

4. Extract the package:

```
$ tar -xzf openmpi-1.10.0.tar.gz
```

5. Go into the extracted directory:

```
$ cd openmpi-1.10.0
```

6. Configure (note: “--prefix=” determines where to install OpenMPI):

```
$ ./configure --prefix=$HOME/openmpi
```

7. Compile (this step may take about 10-15 minutes):

```
$ make all
```

8. Finally install using the following command:

```
$ make install
```

**Now you have installed OpenMPI in \$HOME/openmpi.**

Simply add OpenMPI to your PATH and LD\_LIBRARY\_PATH environment variable and start using it.

For bash add the following two lines to your .bashrc to add OpenMPI to your PATH and LD\_LIBRARY\_PATH environment variable:

```
export PATH=$PATH:$HOME/openmpi/bin  
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$HOME/openmpi/lib
```

For C shell add the following two lines to your .cshrc to add OpenMPI to your PATH and LD\_LIBRARY\_PATH environment variable:

```
setenv PATH ${PATH}:%HOME/openmpi/bin  
setenv LD_LIBRARY_PATH ${LD_LIBRARY_PATH}:%HOME/openmpi/lib
```

### Additional tips:

If you want to build OpenMPI as a static library, you need to add the `--enable-static` to the configure command in step 6 above as follows:

```
$ ./configure --enable-static --prefix=$HOME/openmpi
```

If you are only interested to have the static libraries, you can simply disable building the shared libraries while enabling building static libraries as follows:

```
$ ./configure --enable-static --disable-shared --prefix=$HOME/openmpi
```

Support of PBS Pro, Open PBS, and Torque can be explicitly requested with the command line switch `--with-tm=/path/to/pbs_or_torque/installation/folder` while configuring.

```
$ ./configure --with-tm=/path/to/pbs_or_torque/installation --prefix=$HOME/openmpi
```