This section will mount Network File System (NFS), so that the MPI program can be ran on multiple servers.

Server end:

Check the NFS package, normally they have been installed in your Linux, if not, use:

master $ sudo apt-get install nfs-kernel-server openssh-server build-essential

Create the shared folder (anywhere you prefer) for NFS, we create an example dir /mnt/nfs,

master $ sudo mkdir /mnt/nfs

master $ chown username:usergroup \*

Edit /etc/exports file, add the following code into it:

/mnt/nfs \*(rw,sync)

Then restart NFS: Scientific Linux

master $ sudo /etc/init.d/nfs restart

Ubuntu:

master $ sudo /etc/init.d/nfs-kernel-server restart

Client end:

Install package if not, create NFS dir and mount it:

slave $ sudo apt-get install nfs-common

slave $ sudo mkdir /mnt/nfs

slave $ mount login@server:/mnt/nfs /mnt/nfs

Add it into fstab so that mount NFS after reboot automatically, in /etc/fstab:

nfs-server:/mnt/nfs /mnt/nfs nfs \_netdev, auto 0 0

master slave or default

Firewall issue: log into the master node, edit .bash\_profile. Add the following line (let’s say the port ranges from 10000 to 10100, can be defined as any value)

MPICH\_PORT\_RANGE=10000:10100

start firewall config by root:

master $ sudo system-config-firewall

then go to Other Ports, added the port ranges

10000-10100 tcp

10000-10100 udp

Then, go to slave, edit .bash\_profile. Add the following line:

MPICH\_PORT\_RANGE=10000:10100