



Session-(3.1)

LizardFS Master Meta Data Server Configuration

PLEASE ATTENTION HERE!

- We will provide you vm (lxc-container) in our server to configure master server.
- We will make some group. In each group with three personnel.
- For each group there will be only one master server.
- Only one member of the group will configure the master-server, other members will observe.

Sample Group # 01 -

Master Server Login IP : 192.168.108.15
Master Server Virtual IP : 192.168.108.10

SSH-Login User Name : root
SSH-Login Password : 123789_pw

Group Members IP of Group # 01 -

Member # 01 : 192.168.108.11
Member # 02 : 192.168.108.12
Member # 03 : 192.168.108.13

(3.1.1) = Installation of LizardFS Packages for Master-Server

Open the terminal;

```
sudo su
apt update
apt install -y lizardfs-master lizardfs-adm lizardfs-cgi lizardfs-cgiserv lizardfs-common
```

We have to modify Hosts file as follows.

Here make your **hostname** according to your **groupname** following the bellow format

IP Address	groupX-nodeY
------------	--------------

// replace X with group-number & Y with node number as instructor say.

For Example for Group # 01

```
vim /etc/hosts
192.168.108.10 group1-node0 mfsmaster
192.168.108.11 group1-node1
192.168.108.12 group1-node2
192.168.108.13 group1-node3
```

This is very important to follow the proper naming of the nodes.

For massive deployment you may use internal dns-server configured by unbound.

(3.1.2) = Configuring LizardFS Master-Metadata-Server

Configure an alias IP address for master server. We will configure it as alias IP so that we can move this IP if our Master-Server fail.

```
ifconfig eth0:0 192.168.108.10 netmask 255.255.255.0 up
```

```
cp /usr/share/doc/lizardfs-master/examples/* /etc/lizardfs/
```

```
cd /etc/lizardfs  
vim mfsmaster.cfg
```

Now uncomment the following lines | OR | **Copy & Past** the following lines at the end of the file.

```
PERSONALITY = master  
WORKING_USER = lizardfs  
WORKING_GROUP = lizardfs  
SYSLOG_IDENT = mfsmaster  
EXPORTS_FILENAME = /etc/lizardfs/mfsexports.cfg  
TOPOLOGY_FILENAME = /etc/lizardfs/mfstopology.cfg  
CUSTOM_GOALS_FILENAME = /etc/lizardfs/mfsgoals.cfg  
DATA_PATH = /var/lib/lizardfs  
AUTO_RECOVERY = 1  
ENDANGERED_CHUNKS_PRIORITY = 1  
MASTER_HOST = mfsmaster  
MASTER_PORT = 9419
```

Make some more changes;

```
cp /var/lib/lizardfs/metadata.mfs.empty /var/lib/lizardfs/metadata.mfs
```

Change/uncomment parameter as follows in the file `mfstopology.cfg`

```
vim mfstopology.cfg
```

```
192.168.108.0/24          1
```

Modify the file `mfsgoals.cfg`

```
vim mfsgoals.cfg
```

```
1 1: _  
2 2: __  
3 3: ___  
4 xor2: $xor2  
5 xor3: $xor3
```

Restart the `lizardfs-services`

```
/etc/init.d/lizardfs-master restart  
/etc/init.d/lizardfs-cgiserv restart
```

```
systemctl enable lizardfs-master  
systemctl enable lizardfs-cgiserv
```

```
systemctl status lizardfs-master.service
```

Browse <http://192.168.108.10:9425/>

(3.1.3) = Adding/Making the script to start the LizardFS service autostart at boot/reboot time

```
vim /etc/network/if-up.d/lizardfs-up.sh
```

```
#!/bin/bash
```

```
# ifconfig eth0:0 192.168.108.10/24 up      # enable this line if you want to permanent this ip
```

```
/etc/init.d/lizardfs-master restart
```

```
sleep 3
```

```
/etc/init.d/lizardfs-cgiserv restart
```

Save-and-Exit

```
chmod +x /etc/network/if-up.d/lizardfs-up.sh
```

```
echo 'post-up /etc/network/if-up.d/lizardfs-up.sh' >> /etc/network/interfaces
```

Now reboot.

```
reboot
```

After reboot, Login into console and run the following command;

```
sudo su
```

```
ifconfig eth0:0 192.168.108.10/24 up
```

ATTENTION!!!

*Every-time you reboot master-server you have to run this command.

*If you want to make it permanent **enable** the **ifconfig** line in **/etc/network/if-up.d/lizardfs-up.sh**

Now check from **http://192.168.108.10:9425** that your master-server is running or not.