Step 1: Configure the Kerberos KDC Server

On the KDC server

1. yum install krb5-server krb5-libs

2. Edit the KDC configuration file /var/kerberos/krb5kdc/kdc.conf:

```
[realms]
EXAMPLE.COM = {
kdc = kdc.example.com
admin_server = kdc.example.com
}

[domain_realm]
.example.com = EXAMPLE.COM
example.com = EXAMPLE.COM
```

3.Edit the Kerberos configuration file /etc/krb5.conf

```
[libdefaults]
default_realm = EXAMPLE.COM
dns_lookup_realm = false
dns_lookup_kdc = false

[realms]
EXAMPLE.COM = {
kdc = kdc.example.com
admin_server = kdc.example.com
}

[domain_realm]
.example.com = EXAMPLE.COM
example.com = EXAMPLE.COM
```

4.sudo kdb5_util create -s

(Initialize the database)

5.Edit the KDC ACL file /var/kerberos/krb5kdc/kadm5.acl:

*/admin@EXAMPLE.COM

6.Start the KDC services:

sudo systemctl start krb5kdc
sudo systemctl start kadmin

Step 2: Create Kerberos Principals for Lustre

1.On the KDC server, create the necessary Kerberos principals for Lustre:

sudo kadmin.local -q "addprinc -randkey lustre_mgs/egs01"
sudo kadmin.local -q "addprinc -randkey lustre_mds/egs01"
sudo kadmin.local -q "addprinc -randkey lustre_oss/egs01"
sudo kadmin.local -q "addprinc -randkey lustre_root/client.lustre.com"

2.Create keytab files for the Lustre components:

sudo kadmin.local -q "ktadd -k /etc/krb5.keytab lustre_mgs/egs01"
sudo kadmin.local -q "ktadd -k /etc/krb5.keytab lustre_mds/egs01"
sudo kadmin.local -q "ktadd -k /etc/krb5.keytab lustre_oss/egs01"
sudo kadmin.local -q "ktadd -k /etc/krb5.keytab lustre_root/client.lustre.com"

Step 3: Configure the Lustre Server (egs01):

1.Install kerberos libraries :

```
yum install krb5-libs
```

2.Open the Kerberos configuration file /etc/krb5.conf on egs01 to match the KDC configuration.

3.Copy the keytab file from KDC server.

```
scp user@kdc.example.com:/etc/krb5.keytab /etc/krb5.keytab
```

4.On the Lustre server, start the Kerberos daemon:

```
sudo lsvcgssd -vv -k
sudo lctl conf_param lustre.srpc.flavor.default=krb5n
```

Step 4: Configure the Lustre Client:

1.On the Lustre client machine, install the necessary Kerberos libraries:

```
sudo yum install krb5-libs krb5-workstation
```

2.Open the Kerberos configuration file /etc/krb5.conf to match the KDC configuration.

3.On the KDC server, create a keytab file for the Lustre client:

```
sudo kadmin.local -q "ktadd -k /etc/krb5.keytab lustre_root/client.lustre.com"
```

4.Copy the keytab file from the KDC server:

```
scp user@kdc.example.com:/etc/krb5.keytab /etc/krb5.keytab
```

5.On the Lustre client, mount the Lustre file system:

```
sudo mount -t lustre -o mgssec=krb5n egs01@tcp:/lustre /mnt/lustre
```

Step 5: Verify the Configuration:

1.Check the kerberos ticket:

```
kinit lustre_root/client.lustre.com
```

2.Verify the lustre mount:

```
df -h | grep lustre
```

3.Check lustre connections:

```
lctl dl
```