Install and Setup FreeRADIUS on CentOS 5, CentOS 6

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Tutorial to setup and configure FreeRADIUS on CentOS 5:

Follow the instructions below to have your FreeRADIUS setup on CentOS ready to go. The differences between CentOS versions commands have been distinguished in this document.

CentOS 5: yum install freeradius2 freeradius2-mysql freeradius2-utils mysql-server –y

CentOS 6: yum install freeradius freeradius-mysql freeradius-utils mysql-server -y

Then :

```
service mysqld start
mysql
```

or

```
mysql -uroot -p
```

Then enter your mysql root password for next step.

To create the database and grant all privileges to user in RADIUS:

```
mysql> CREATE DATABASE radius;

mysql> GRANT ALL PRIVILEGES ON radius.* TO radius@localhost IDENTIFIED BY "radpass";
mysql> flush privileges;
```

In some situations you may need to grant remote access to mysql, For this follow :

https://safesrv.net/setup-a-remote-connection-to-mysql/

Now we have to import the tables for radius:

```
mysql> use radius;

mysql> SOURCE /etc/raddb/sql/mysql/schema.sql
musql> exit
```

Now open up ***/etc/raddb/sql.conf*** and enter the mysql database details you just created, for example:

```
# Connection info:
    server = "localhost"
    #port = 1812
    login = "radius"
    password = "radpass"

    # Database table configuration for everything except Oracle
    radius_db = "radius"
```

In ***/etc/raddb/radiusd.conf*** ensure that the line be as:

```
$INCLUDE  sql.conf
```
(it is **uncommented**.)

Edit ***/etc/raddb/sites-available/default*** and uncomment the line containing ***'sql'*** in the ***authorize{}*** section and ***'sql'*** in the ***accounting {}*** section, also uncomment ***'sql'*** under ***session {}***.

Additionally, edit ***/etc/raddb/sites-available/inner-tunnel*** and uncomment the line containing ***'sql'*** under ***"authorize {}"*** and under ***session {}***.

Open up ***/etc/raddb/clients.conf*** set your secret to something a bit more random, example:

Change:

```
secret = testing123
```
To a secure secret like:

```
secret = 43abcy21345mfn67lem89dgr895fnghj67awm23
```

Now check to see if Radius is working properley:

```
service radiusd restart
service radiusd stop
```

To add clients (External VPN Servers) you would edit ***/etc/raddb/clients.conf*** and exactly under this line:

```
#  coa_server = coa
}
```
Add a block like this:

```
client VPN_SERVER_IP {
    secret              = YOUR SECRET
    shortname= YOURVPN
    nastype     = other
}
```
To allow external servers and software to authenticate off your FreeRADIUS, this has to be done every time you setup an external server to use this FreeRADIUS database.

The radius needs to be restart every time the config file has been changed.For restating the RADIUS:

```
service radiusd restart
```

For adding a test user to the radius database, first needs to login to the mysql radius database:

```
mysql -uroot -pyourrootpass
```

And then switch to the radius database:

```
mysql> use radius;
```

Then execute the below commands:

```
mysql> INSERT INTO `radcheck` (`id`, `username`, `attribute`, `op`, `value`) VALUES (1,'username','User-Password',':=','password');
```

Then test the test user with radtest.

```
radtest username password 127.0.0.1 0 mysecret
```

to add Clients:

```
sudo nano /etc/freeradius/clients.conf
```

Add in the last line :

```
client 192.168.1.30 {
secret=network
shortname=router
nastype=cisco
}
sudo service freeradius restart
```

The respond “rad_recv: Access-Accept” shows the installation is working fine.

To debugging FreeRADIUS for helping to pinpoint any issues:

```
servie radiusd stop
radiusd -X
```

The RADIUS activities are shown in real time. The authentication queries, access accepts or access rejects reports are reported in real time.