Installing FreeRADIUS version 3.x on Raspberry Pi OS

Introduction

- Install FreeRADIUS and MySQL module.

```
sudo apt-get -y install libdatetime-perl libdbd-mysql-perl eapoltest
sudo apt-get -y install freeradius freeradius-mysql
# Answer yes to install these with their dependencies
# Please note that when this package is installed there are some things
generated that can take up lots of time on slower machines.
```

- Enable and Start FreeRADIUS

```
sudo systemctl enable freeradius
sudo systemctl start freeradius
sudo systemctl status freeradius
```

Configuring FreeRADIUS version 3.x

- Do the following to configure FreeRADIUS 3.x to work with RADIUSdesk

```
# Stop the service if it is already running
sudo systemctl stop freeradius
# Backup the original FreeRADIUSdirectory
sudo mv /etc/freeradius /etc/freeradius.orig
# Extract the RADIUSdesk modified FreeRADIUS directory
sudo tar xzf /var/www/html/cake4/rd_cake/setup/radius/freeradius-
radiusdesk.tar.gz --directory /etc
sudo chown -R freerad. /etc/freeradius/3.0/
sudo  mkdir /var/run/freeradius
sudo chown freerad: /var/run/freeradius
```

- Configure the site-wide shared secret. This will be the value used by ALL Dynamic Clients.

```
sudo vi /etc/freeradius/3.0/sites-enabled/dynamic-clients
```

- Look for this part in the file and change FreeRADIUS-Client-Secret to the value you choose to use.

```
#  Echo the IP address of the client.
FreeRADIUS-Client-IP-Address = "%{Packet-Src-IP-Address}"

# require_message_authenticator
FreeRADIUS-Client-Require-MA = no

# secret
FreeRADIUS-Client-Secret = "testing123"
```

```
# shortname
FreeRADIUS-Client-Shortname = "%{Packet-Src-IP-Address}"
```

- Comment out the following two lines in the Systemd unit file

```
sudo vi /lib/systemd/system/freeradius.service
```

- See this sample to see which two lines to comment out. Failing to do this will result in a broken system with FreeRADIUS not starting up during boot.

```
[Unit]
Description=FreeRADIUS multi-protocol policy server
After=syslog.target network.target
Documentation=man:radiusd(8) man:radiusd.conf(5) http://wiki.freeradius.org/
http://networkradius.com/doc/

[Service]
Type=forking
PIDFile=/run/freeradius/freeradius.pid
#EnvironmentFile=-/etc/default/freeradius
#ExecStartPre=/usr/sbin/freeradius $FREERADIUS_OPTIONS -Cxm -lstdout
ExecStart=/usr/sbin/freeradius $FREERADIUS_OPTIONS
Restart=on-failure
RestartSec=5

[Install]
WantedBy=multi-user.target
```

- After you completed these commands you can test if FreeRADIUS starts up fine.

```
sudo systemctl daemon-reload
sudo systemctl restart freeradius
sudo systemctl status freeradius
```

Fixing a small bug

- There is a small bug which prevents FreeRADIUS to start up after a reboot.
- It has been reported here: https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=954911
- There also seems to be a fix but it has not reached the Debian repositories as of this writing.
- So here is the fix taken from the discussion in the link.
- Create a file called **/usr/lib/tmpfiles.d/freeradius.conf**.

```
sudo vi /usr/lib/tmpfiles.d/freeradius.conf
```

- Add the following line

```
d /run/freeradius 750 freerad freerad -
```

- If you are curious about what we did, here is a writeup on tmpfiles.d
  - https://www.commandlinux.com/man-page/man5/tmpfiles.d.5.html

From:

https://radiusdesk.com/wiki/ - **RADIUSdesk**

Permanent link:

https://radiusdesk.com/wiki/getting_started/12_install_pi_freeradius

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