

Probe and PerfSonar installation

First, we have to install PerfSonar itself. PerfSonar comes in a few different flavours, but the one we're interested in is **perfsonar-testpoint**.

Step 1 is to configure APT with the PerfSonar package repositories. As root, do this:

```
cd /etc/apt/sources.list.d/  
wget http://downloads.perfsonar.net/debian/perfsonar-release.list  
wget -qO - http://downloads.perfsonar.net/debian/perfsonar-official.gpg.key | apt-key add -
```

We can now update APT and install the packages:

```
apt-get update  
apt-get install perfsonar-testpoint
```

If asked about database configuration (Postgres), simply answer that the database should be running on localhost. Choose a fancy password.

We should now configure the OS itself:

In order to be able to run all the tests for dot1X we have to give PerfSonar some additional permissions. It must be able to:

- Manage wpa-suplicant over its D-BUS interface, we will use 'wpa_cli' to configure the supplicant.
- Run dhclient as root to acquire an IP address. There are no ways around this, we must be root.

First thing is to do is to make sure the user pscheduler can run dhclient as it wish. **Add the following lines to "/etc/sudoers"**:

```
Cmnd_Alias DHCP = /sbin/dhclient  
User_Alias DCHPUSERS = pscheduler  
DCHPUSERS ALL = NOPASSWD: DHCP
```

We must also add the pscheduler user to the netdev group, otherwise we're not allowed to control wpa_suplicant. In **"/etc/group"**, **modify the netdev group to include pscheduler**:

```
netdev:x:109:pi,pscheduler
```

Modify whatever startup scripts (systemd?) to start wpa_suplicant. The interface, eth0, should be replaced with whatever interface you want to use. Also -u is needed for D-BUS communication.

```
wpa_suplicant -B -c /etc/wpa_suplicant/wpa_suplicant.conf -i eth0 -D wired -u
```