What is Freeradius?

Freeradius is free software using to provide ... Well see the website, it's the better definition

http://www.freeradius.org

Why connecting Freeradius with Gosa ?

Users of Radius Services can be managed with dialupadmin, but is very limited and obsoleted. GOsa2 is a very good solution to manage the users and even show accounting (via mysql/pg).

For now there some ideas for this plugin.

1.- Dialup user data

2.- 802.1x security over lan

3.- WIFI

4.- radius ldapgroup

5.- radius huntgroups in ldap

6.- radius accounting

General design and freeradius configuration
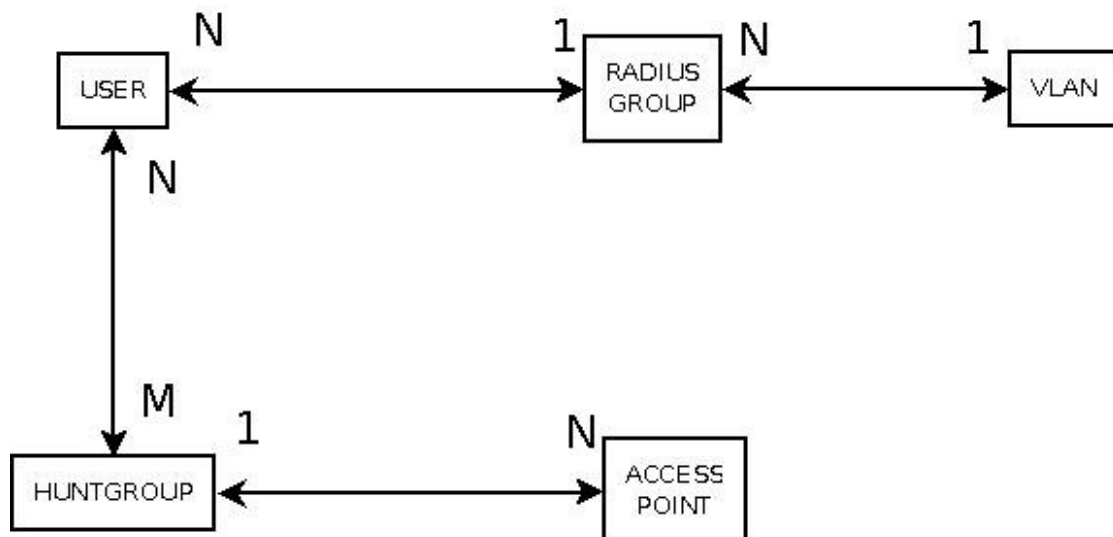
There are two modes of make the freeradius plugins, the ldap mode and the flat files mode.

* LDAP MODE:

In this mode all the configuratión is managed in ldap. Is very limited by design of freeradius (unlang procesing language don't support loops and then need to use rlm_perl to do the work) Clients.conf is not supported by rlm_ldap (only supported in flat files or rlm_sql).

In a first design we want to use freeradius for 802.1x, then we must to understand how the user use radius:

1.- A user connect with a Access Point

2.- The Access Point call to the radius server (freeradius file: clients.conf)

3.- The radius server get the user/password information and the ip of the Access Point and use it to authenticate.

4.- The radius server assign a VLAN to the connection based in the user, in the group of the user, the hungroup of the Access Point or any combination.

We want to manage freeradius users, groups and huntgroups. GOsa2 will have the following objects:

> freeradius user
>
> freeradius group
>
> freeradius huntgroup
>
> freeradius accesPoint

freeradius service (IN TODO).

We don't need that a user have a freeradius extension for authentication only for VLAN configuration.

A user only can belong to a freeradius group, because only one attribute of each class can be given to a user.

A Access Point must belong to a Huntgroup (usable in special configurations).

How to create and modify freeradius attributes in a user

The user have a new tab: Freeradius, in this tab you can choose if the user need 802.1x to connect to network (ethernet or wifi).

Also can choose a limit date for the user to connect.

The configuration for gosa.conf is:

```
…
    <section name="My account">
        …
        <plugin acl="users/freeradiusAccount:self" class="freeradiusAccount" />
        …
    </section>
…
    <usertabs>
        …
        <tab class="freeradiusAccount" name="FreeRadius" />
        …
    </usertabs>
…
```

To configure the radius service must read first: http://wiki.freeradius.org/Rlm_ldap

The windows must show something like this:

How to use Groups for assign radius values to a radius User

The group have a new tab: Freeradius, in this tab you can choose if the users of the group use 802.1x to connect to network (ethernet or wifi) and the corresponding VLAN.

The configuration for gosa.conf is:

```
…
    <grouptabs>
        …
        <tab class="freeradiusGroup" name="FreeRadius" />
        …
    </grouptabs>
…
```

See the group selector in user tab, you can choose only one group here (Important, you must to define a group to have freeradius support to see the group here), the group must be defined in users flat file or in a script based in rlm_perl/rlm_python to get the information from ldap.

By other way we can create groups only for define radius VLAN of the users, in this manner a user can belong to one group at the same time. (A user can only have a VLAN).

* How to use Hungroups and Access Points to assign values to radius Users
IN TODO
* How to use Radius Accouting
IN TODO