

What is Freeradius?

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

<http://www.freeradius.org>

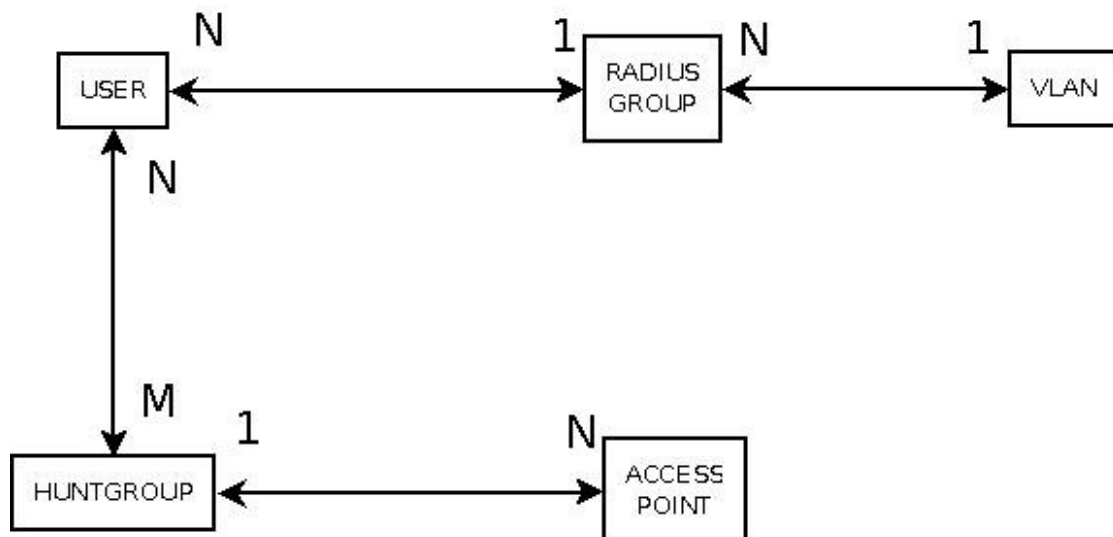
Why connecting Freeradius with Gosa ?

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 to make the freeradius plugins, the ldap mode and the flat files mode.

* LDAP MODE:

In this mode all the configuration is managed in ldap. Is very limited by design of freeradius (unlang processing 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 huntgroup 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:

The screenshot shows the GOSa² web interface. The top bar is green with the GOSa² logo, navigation links (Main, Help, Sign out), and the user 'superadmin' is signed in. The left sidebar contains a tree view with categories: 'My account' (Generic, UNIX, Environment, Samba, Freeradius, Connectivity, Password), 'Administration' (Departments, Users, Groups, Roles, Object groups, Hotplug devices, Software deployment, Software licenses, Acl, Sudo), and 'Addons' (Addressbook, LDAP manager). The main content area is titled 'Manage users' and shows a user profile for 'uid=test'. The 'FreeRadius' tab is selected, displaying a message: 'This account has Freeradius settings enabled. You can disable them by clicking below.' with a 'Remove Freeradius settings' button. Below this, the 'Freeradius Account' section has '802.1x Support' checked, a 'Select id of VLAN:' field, and 'Session expires on:' set to 17 May 2010. The 'Group Information' section on the right has a 'Radius Groups' list and 'Add Group' and 'Delete' buttons. At the bottom right are 'Ok', 'Apply', and 'Cancel' buttons.

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).

The screenshot shows the GOSa² web interface. The top navigation bar includes the GOSa² logo, links for Main, Help, and Sign out, and a status indicator 'Signed in: superadmin'. The left sidebar contains a menu with sections: 'My account' (Generic, UNIX, Environment, Samba, Freeradius, Connectivity, Password), 'Administration' (Departments, Users, Groups, Roles, Object groups, Hotplug devices, Software deployment, Software licenses, Acl, Sudo), and 'Addons' (Addressbook, LDAP manager). The main content area is titled 'Group administration' and features a 'new' button. Below the title are tabs for 'Generic', 'FreeRadius', 'ACL', and 'References'. The 'FreeRadius' tab is active, displaying the message: 'This account has Freeradius settings enabled. You can disable them by clicking below.' with a 'Remove Freeradius settings' button. Below this is a section for 'Freeradius Account for Group Management' with a checkbox for '802.1x Support' and a text input for 'Select id of VLAN:'. 'Ok' and 'Cancel' buttons are at the bottom right of this section.

* [How to use Hungroups and Access Points to assign values to radius Users](#)

IN TODO

* [How to use Radius Accounting](#)

IN TODO