

Manual for PowerRadius

RADIUS for LAN



Content

- 1.Introduction
- 2.Installation for Windows
- 3.Installation for Linux
- 4.Configurations
- 5.Start your business
- 6.Tuning your system
- 7.Buy it now

1.Introduction

- 1.1.What's PowerRadius?
- 1.2.Why choose PowerRadius?
- 1.3.System Requirements
- 1.4.What's in the zip file for Linux?

1.1.What's PowerRadius?

- PowerRadius is a powerful RADIUS server for LAN, W-LAN, VPN, PPPoE.
- PowerRadius supports Cisco, Huawei gateway, firewall, router, etc.
- PowerRadius supports prepaid card service.
- PowerRadius provides WEB interface.
- Have many successful cases already.

1.2.Why choose PowerRadius?

- Small, fast, stable, powerful.
- Supports Linux/Windows.
- Customization service available.
- Based on LAMP (Linux+Apache+Mysql+Php) technology.
- PowerRadius provide OEM version too.

1.3. System Requirements

- OS: Linux, Redhat 9 is a good choice.
 - Database: mysql or others
 - Web Server: Apache
 - Web Script: php
 - Others: php-mysql
-
- If you choose Windows, you can just download our Windows version, it includes Apache+php+mysql already.

1.4.What's in the zip file for Linux?

- PowerRadius.conf : It's the configuration file of PowerRadius .
- PowerRadius.exe : It's the executable file of PowerRadius .
- Web path : It's the web interface of PowerRadius .
- Manual.pdf : It's the user manual of PowerRadius .
- Others: They are help or demo files

2.Installation for Windows

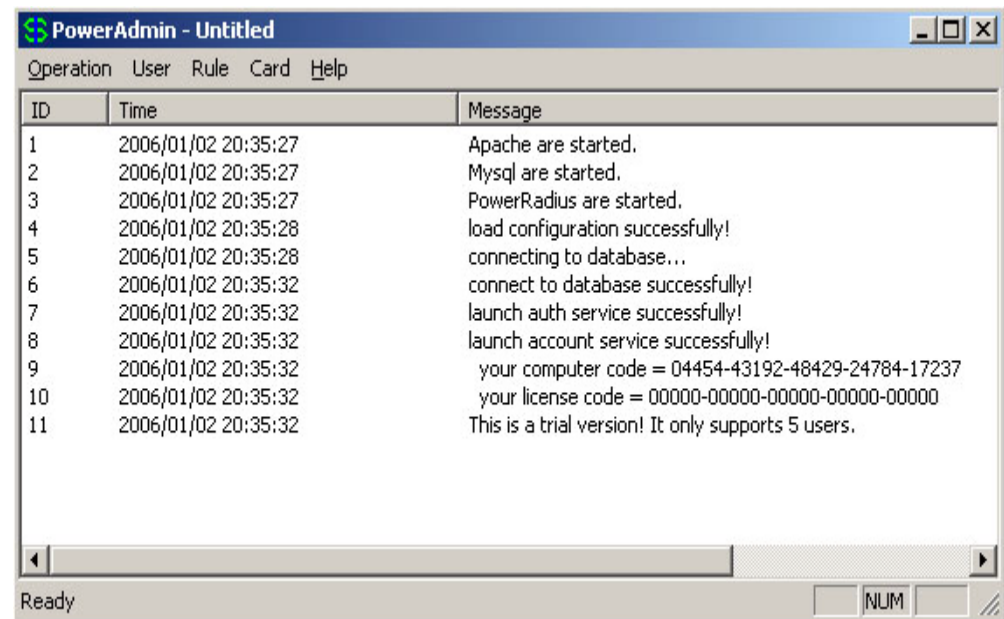
- 2.1.Unzip Files
- 2.2.Start PowerRadius

2.1.Unzip Files

- Unzip the zip file for Windows to C:\. (Note: Must be C:\)
- Thus you will get a path named *C:\PowerRadius* that includes the following files or paths:
*RowerAdmin.exe,Manual.pdf,Apache,Billing,P
HP,www, etc.*
- And a path named *C:\MySQL*.

2.2.Start PowerRadius

- Just Start RowerAdmin.exe, you will get the right GUI.
- Then PowerRadius will be started.



3.Installation for Linux

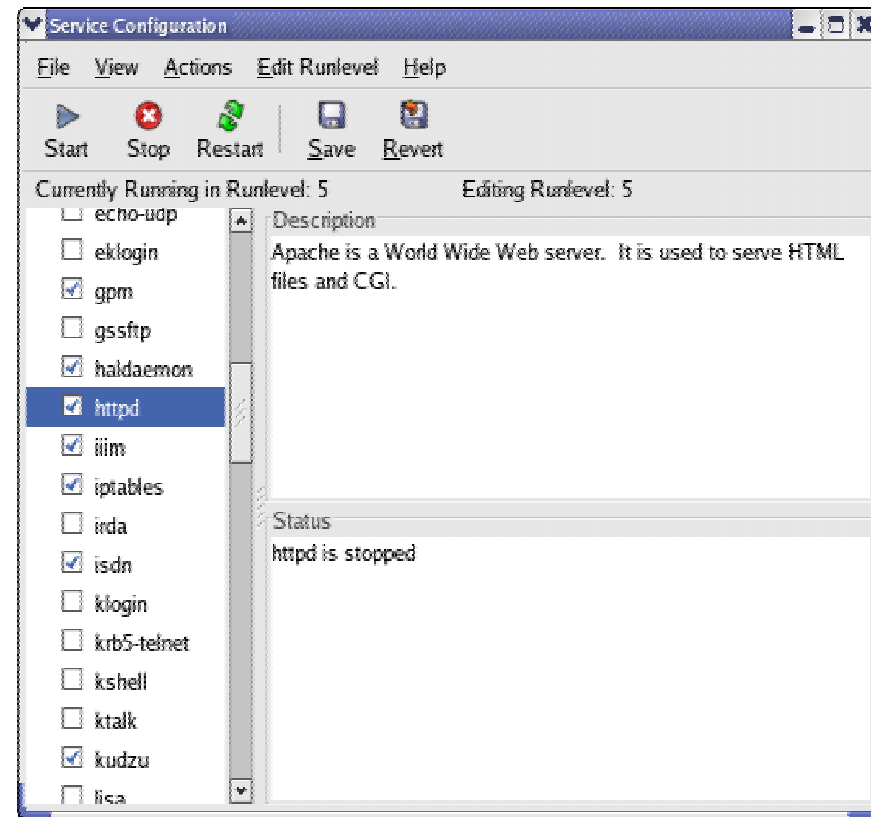
- 3.1.Copy All Files
- 3.2.Start Apache and Mysql
- 3.3.Modify Configuration File
- 3.4.Create Database Structure
- 3.5.Start PowerRadius

3.1.Copy All Files

- Copy files to suitable paths of your Linux.
- Copy *PowerRadius.conf* to */etc* path.
- Copy *PowerRadius.exe* to */usr/bin* path.
- Copy all files under path *web* to */var/www/html* path.
- Please make sure everyone has read & execute rights for all these files.

3.2.Start Apache and Mysql

- Start your Apache and mysql.
- Please go to menu *System Settings/Server Settings/Services* of your Linux and enable *httpd* and *mysqld* as the right figure.

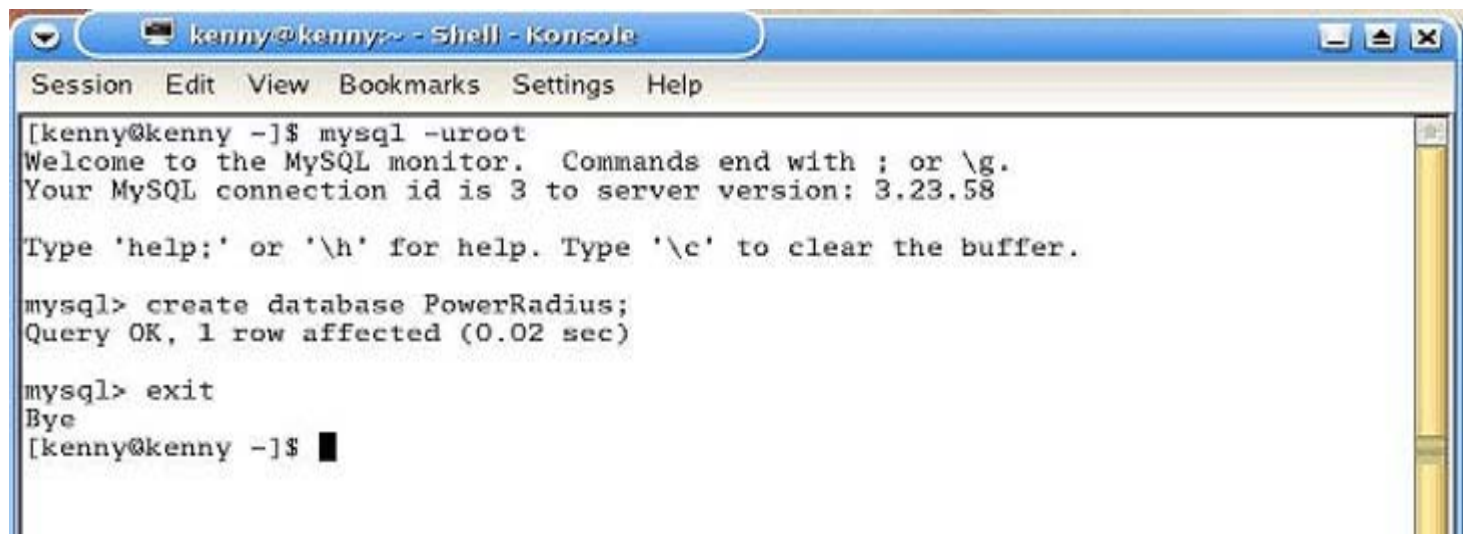


3.3.Modify Configuration File

- Modify */etc/PowerRadius.conf* for your PowerRadius .
 - <PowerRadius>
 - auth=1812
 - account=1813
 - secret=PowerRadius
 - <Database>
 - server=localhost
 - database=PowerRadius
 - username=root
 - password=

3.4.Create Database Structure

- Create a database for PowerRadius with your mysql.



```
kenny@kenny:~ - Shell - Konsole
Session Edit View Bookmarks Settings Help

[kenny@kenny ~]$ mysql -uroot
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3 to server version: 3.23.58

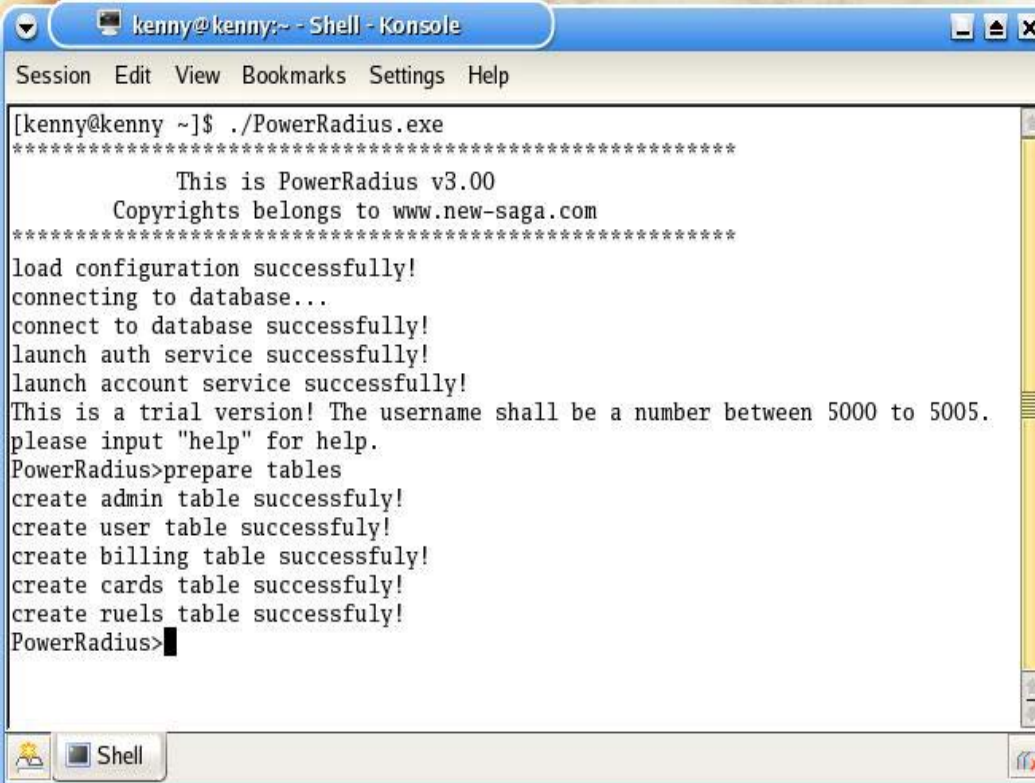
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> create database PowerRadius;
Query OK, 1 row affected (0.02 sec)

mysql> exit
Bye
[kenny@kenny ~]$
```

3.5.Start PowerRadius

- Start PowerRadius.exe and create database structure.
- Start PowerRadius.exe and input command *prepare tables*, thus PowerRadius will create database structure for you.



```
kenny@kenny: ~ - Shell - Konsole
Session Edit View Bookmarks Settings Help

[kenny@kenny ~]$ ./PowerRadius.exe
*****
                This is PowerRadius v3.00
        Copyrights belongs to www.new-saga.com
*****
load configuration successfully!
connecting to database...
connect to database successfully!
launch auth service successfully!
launch account service successfully!
This is a trial version! The username shall be a number between 5000 to 5005.
please input "help" for help.
PowerRadius>prepare tables
create admin table successfully!
create user table successfully!
create billing table successfully!
create cards table successfully!
create ruels table successfully!
PowerRadius>
```

4.Configuration

- 4.1.What's NAS?
- 4.2.General Configuration for NAS
- 4.3.ADSL network
- 4.4.VPN network
- 4.5.W-LAN network
- 4.6.NAT network
- 4.7.Summary

4.1.What's NAS?

- NAS is Network Access Server, such as Cisco, Huawei gateway, firewall, router, etc..
- NAS shall provide RADIUS interface.
- So you shall configure your NAS and configure PowerRadius as its RADIUS server.

4.2.General Configuration for NAS

- Configuration variances are:
- primary_port 1812
- primary_secret "PowerRadius"
- primary_server [IP_address that running PowerRadius]
- retransmissions 3
- secondary_port 1812
- secondary_secret "PowerRadius"
- secondary_server [IP_address that running PowerRadius]
- timeout 5

4.3.ADSL (PPPoE) network

- NAS (hardware based): Cisco 7400, ...
- NAS (software based): RP-PPPOE, RouterOS, ...
- Clients: EnterNet300, WinPoET, RasPPPoE

4.4.VPN network

- NAS (hardware based): Cisco 2621, ...
- NAS (software based): Microsoft VPN server. OpenVPN
- Clients: Microsoft VPN dialer (see right.), Cisco VPN client.



4.5.W-LAN network

- NAS: W-LAN AP(Access Point). Please choose *EAP Authentication* at IEEE802.1x.
- Clients, Please choose one of the following:
 - [Odyssey Client](#)
 - [AEGIS Client](#)
 - [Xsupplicant](#)
 - [open1x](#)
- Please choose *MD5-Challenge* as 802.1x protocol.

4.6.NAT network

- NAS (hardware based): Cisco 2621, ...
- NAS (software based): ISA firewall, Ingate Firewall, Cisco PIX, ...
- Clients: Secure VPN Client, Cisco VPN Client,

4.7.Sample Cisco configuration

- !
- aaa new-model
- aaa authentication ppp vpdn radius
- aaa authorization network default radius
- aaa accounting network default start-stop radius
- !
- radius-server host 172.22.66.16 auth-port 1645 acct-port 1646
- radius-server key cisco
- end

4.7.Summary

- Hotels, bars, schools, organizations can choose PowerRadius to build their own commercial access network to provide their clients Internet services.

5.Introduction

- 5.1.Start Your Business
- 5.2.What's money card in the web
- 5.3.Setup prepaid hours services
- 5.4.Billing by Month
- 5.5.Setup prepaid services
- 5.6.Setup postpaid services

5.1.Start Your Business

- <http://127.0.0.1/admin> is all administrator's tools.
- <http://127.0.0.1/> is all users' tools.
- Please create some users & rules to start your business.

Add users - Microsoft Internet Explorer

文件(F) 编辑(E) 查看(V) 收藏(A) 工具(T) 帮助(H)

地址(D) D:\projects\PowerRadius\ready\LAN-Windows32\PowerRadius\www\admin\createusers.html

Powerful LAN Billing Solution

Create users: Create users.
Delete users: Username is from
Change users: The length of the password for auth is
Query users: The length of the password for WEB is
Create cards: Billing group is
Delete cards: Expiry date is ('yyyy-mm-dd hh:mm:ss' means expiry time; digit, such as 11.2, means how many hours since first login; empty means NEVER expired)
Change cards: MAC addr. is (00:00:00:00:00:00 means the MAC addr that first logined, or empty means NEVER check it.)
Query cards: Their initial average speed is KBPS
Create rule: Balance is dollars.
Delete rule:
Change rule:
Query rules:
Billing records:
Adding history:
Talking users:
Change password:
Logout:

5.2.What's money card in the web

- Money card is a card with ID/PIN.
- Your can create money cards via web and sale money cards to users.
- Users will purchase money cards and add the money of the cards into their account via web.

5.3.Setup prepaid hours services

- This kind of users can use service for some prepaid hours since his first login.
- For example, the clients of an ISP can buy 10 days service since their first login.
- What you shall do is to add users with *expiry=240*. (10 days =240 hours). The billing rule for them can be \$0 for every minute.

5.4.Billing by Month

- You want to charge this kind of users every month.
- For example, the fee for the clients of an ISP is \$5 per month.
- What you shall do is to add users with *expiry=2008-01-31 24:00:00..* The billing rule for them can be \$0 for every minute.
- And you shall update their *expiry* every month when they paid the fee \$5.

5.5.Setup prepaid services

- This kind of users shall buy ID card for the service and buy the money card thus they can add money to their ID card.
- ID card is *user* in the *PowerRadius* web interface. ID card will bear their username / password for login.
- Money card is *card* in the *PowerRadius* web interface. Money card will present some money that users can transfer to their ID card.

5.6.Setup postpaid services

- These users are always VIP. They can use your service before the payment.
- What you shall do is to add users with a large *balance*, for example, \$10000.
- Then the fee for the postpaid user is the difference between \$10000 and *balance*.

6. Tuning your system

- 6.1.Run PowerRadius as demon
- 6.2.Customize WEB with yourself

6.1.Run PowerRadius as daemon

- Command `./PowerRadius.exe -d &` to execute PowerRadius.exe as daemon.
- Please add `/usr/bin/PowerRadius.exe -d &` into file `/etc/rc.d/rc.local`, thus PowerRadius will start when your Linux booted.
- For some kinds of redhat, you may have to run `ln -s /tmp/mysql.sock var/lib/mysql/mysql.sock` to configure your mysql.
- For some kinds of redhat, you may have to *disable Selinux protection for httpd daemon* at *System Settings/Security level*.
- In general, you can stop PowerRadius by input **quit** command.
- Please use Linux command **kill -9 <pid>** to stop PowerRadius when you stopped PowerRadius abnormally.
- You can get the **<pid>** with Linux command **ps ax**.
- You can also stop PowerRadius by input command: **kill -9 `ps ax | grep 'PowerRadius.exe' | head -c 5`**.

6.2. Customize WEB with yourself

- You can develop WEB presentation with yourself via access mysql directly.
- Our WEB presentation is a good guide for you to develop your own WEB presentation.
- We suggest you add your logo to the web presentation and translate in to your own language.
- For security reason, you can remove *database* path under web path.

7. Buy it now

- 7.1. Technical supports
- 7.2. Supporting your application
- 7.3. Why need commercial version
- 7.4. How to purchase PowerRadius

7.1. Technical supports

- Please download latest PowerRadius from [here](#).
- PowerRadius is very easy to use, so you can always have a successful trial. Please have a try before asking technical supports.
- You can get technical supports via MSN. The ID is ITconsult2000@hotmail.com .
- If you want us customize PowerRadius for your special requirements, please also let us know.

7.2.Supporting your application

- If you have your own application already, such as your web site and your database structure.
- Now what you need is a RADIUS server that supports your database structure.
- Customization service available. We can customize PowerRadius to support your database structure.

7.3. Why need commercial version

- The limitation of the trial version is that it only supports 5 users.
- If you want to remove this limitation, you shall purchase the commercial version.
- If you want customization service, you can only choose the commercial version.

7.4.How to purchase PowerRadius

- Please just input command *show config* in *PowerRadius* to know *your computer code*.
- Please [purchase it online](#) and fill with *your computer code*.
- We will send you a *license code*, then please fill the *license code* at the line of *license=12345-67890-12345-67890-12345* of your */etc/PowerRadius.conf*.
- Restart *PowerRadius*, then it will become a commercial version.

A large green shape on the left side of the slide, featuring a white semi-circular cutout at the top.

The End

Thanks!

A thick, dark blue horizontal bar with rounded ends, positioned at the bottom of the slide.