

SAS3

INSTALLATION MANUAL

SNONO SYSTEMS ©
2015

FORWARD

This document describes the installation procedure of SAS3 billing system on x86-64 bit host or virtual machine.

The manual covers the installation and configuration of the NAS (Mikrotik & Cisco) using PPPoE and hotspot setup.

Please note that SAS3 receives online updates from time to time , it is always recommended to update your software to the latest version before starting the configuration section.

INSTALLATION Requirements

Minimum hardware requirements :

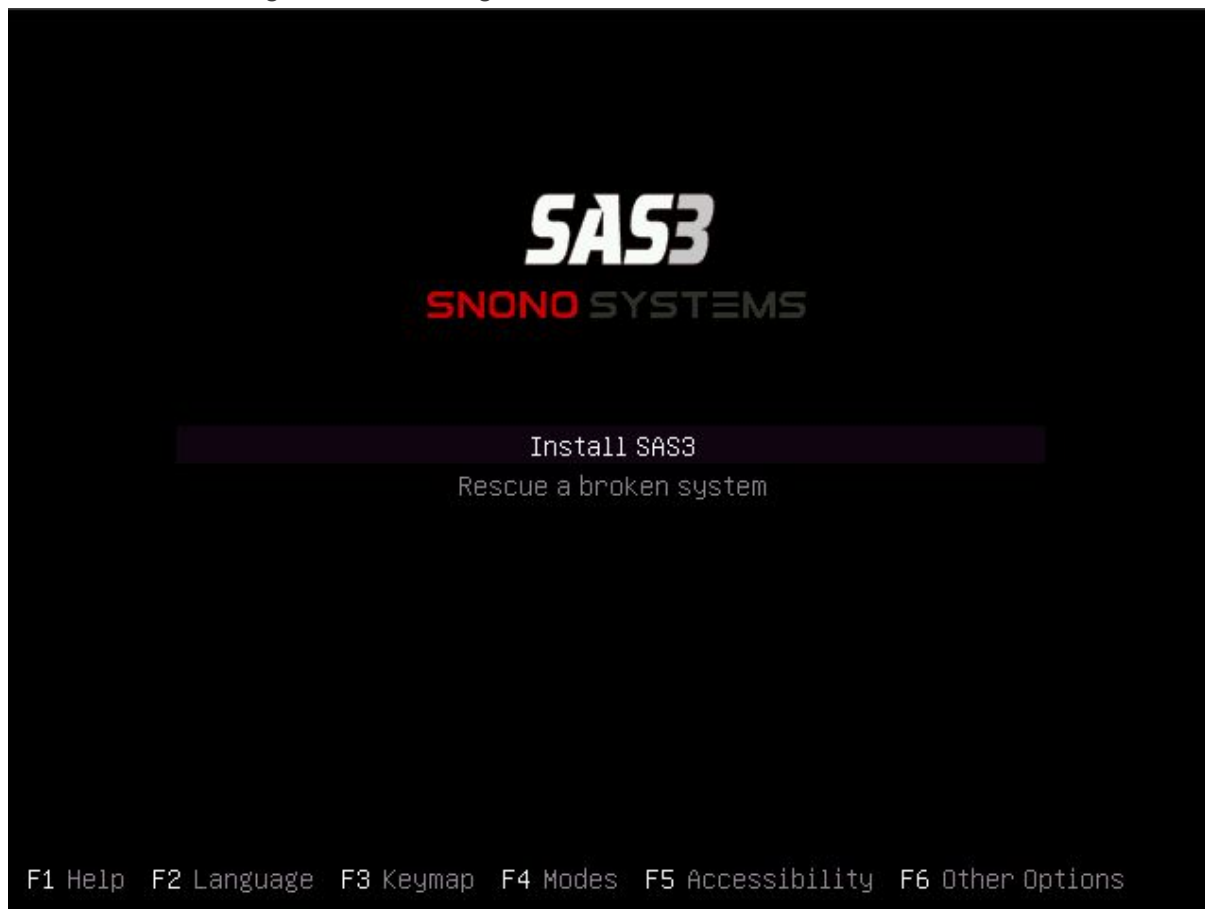
- Intel Core i3 or better (64bit CPU is mandatory)
- 4GB of RAM
- 250GB HDD or more (7200 RPM or better)

Software Requirement :

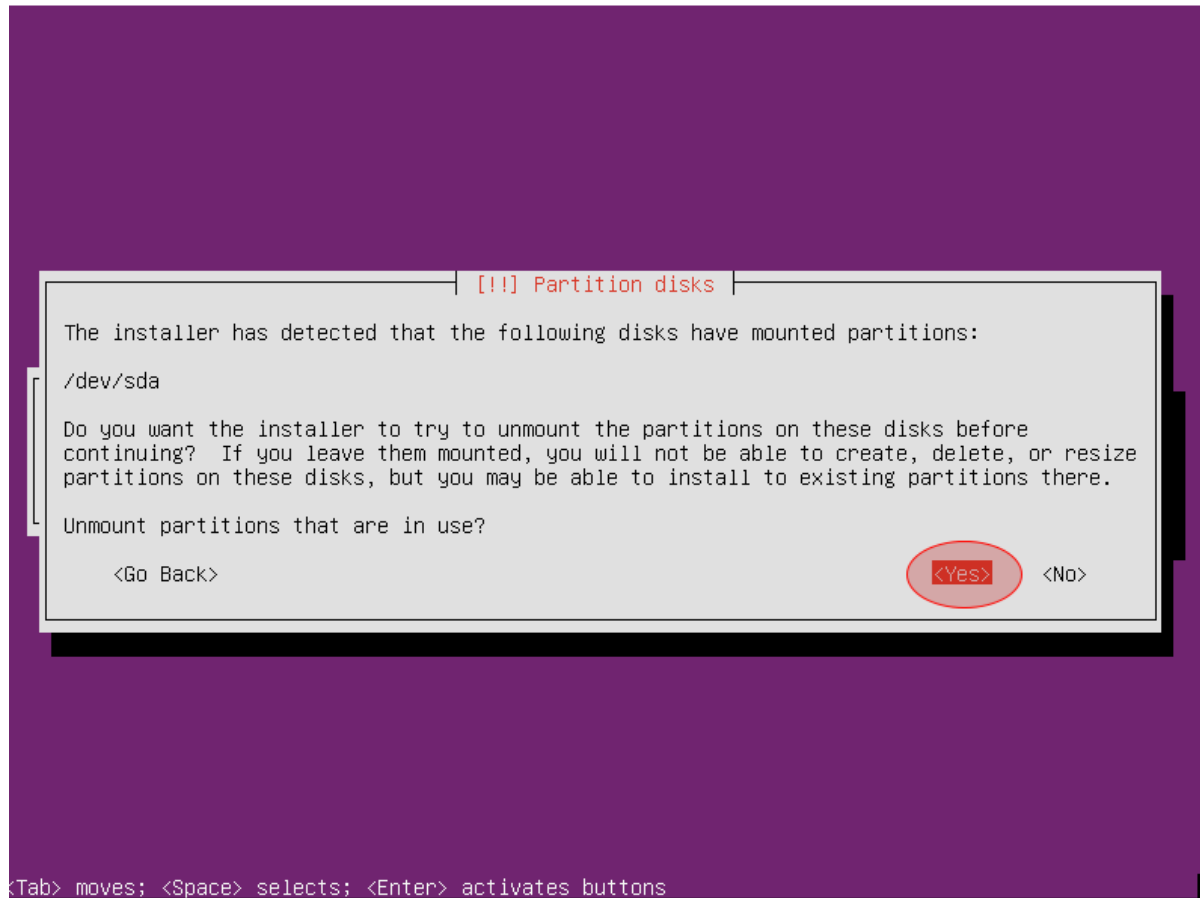
- SAS3 ISO image which can be downloaded from www.snono-systems.com
- CD Burning software such as Nero on windows or K3B on Linux.

Starting Up

Boot the server using SAS3 ISO image and select "Install SAS3"



SAS3 installation is fully automated. If you install on blank hard drive , no questions will be asked. Sometimes when the target disk has some partitions left on , SAS3 will come up with the following screen. Select **'Yes'** to continue



When installation is over, the server will reboot twice. When done, Linux login prompt will appear. Login using username (**sas**) and password (**sas123**).

```
Ubuntu 14.04.1 LTS snonosystems-sas3 tty2
```

```
snonosystems-sas3 login: sas
```

```
Password:
```

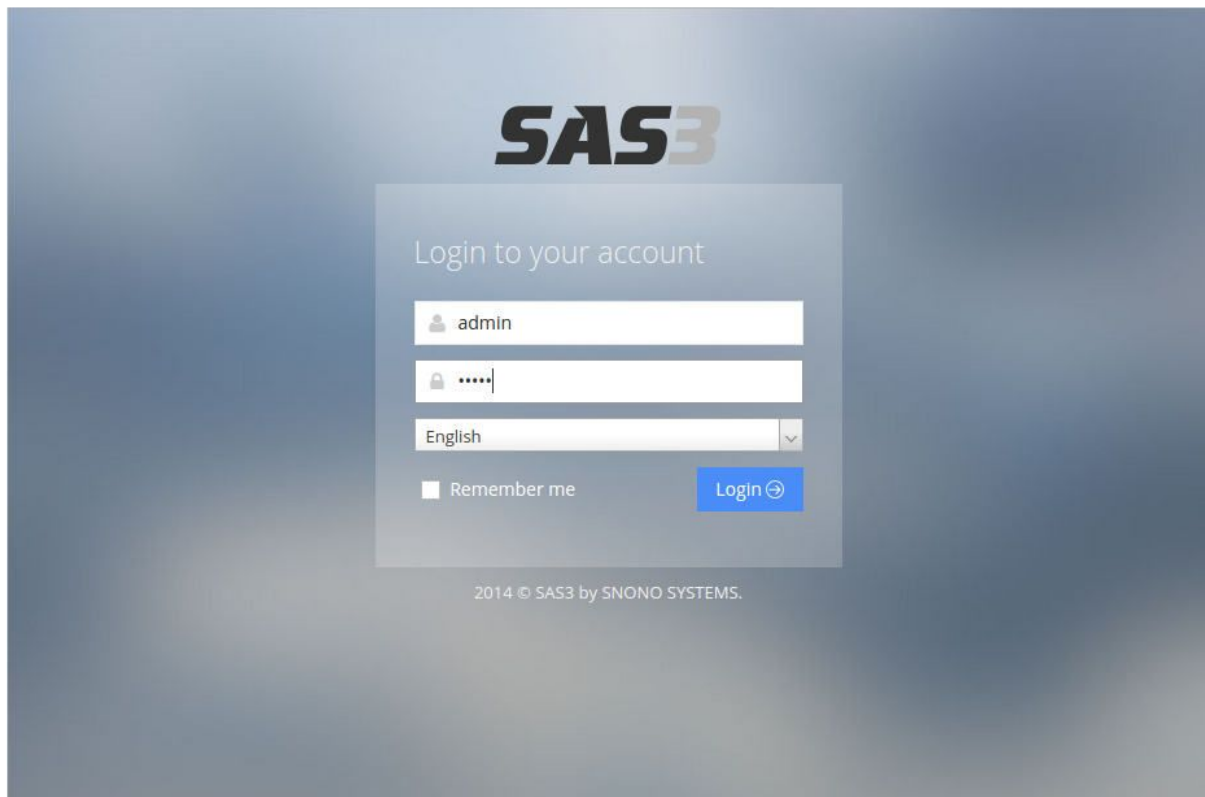
```
username : sas  
password : sas123
```

Set your IP address, netmask ,gateway & DNS server (very important).Also make sure you set your correct **timezone**

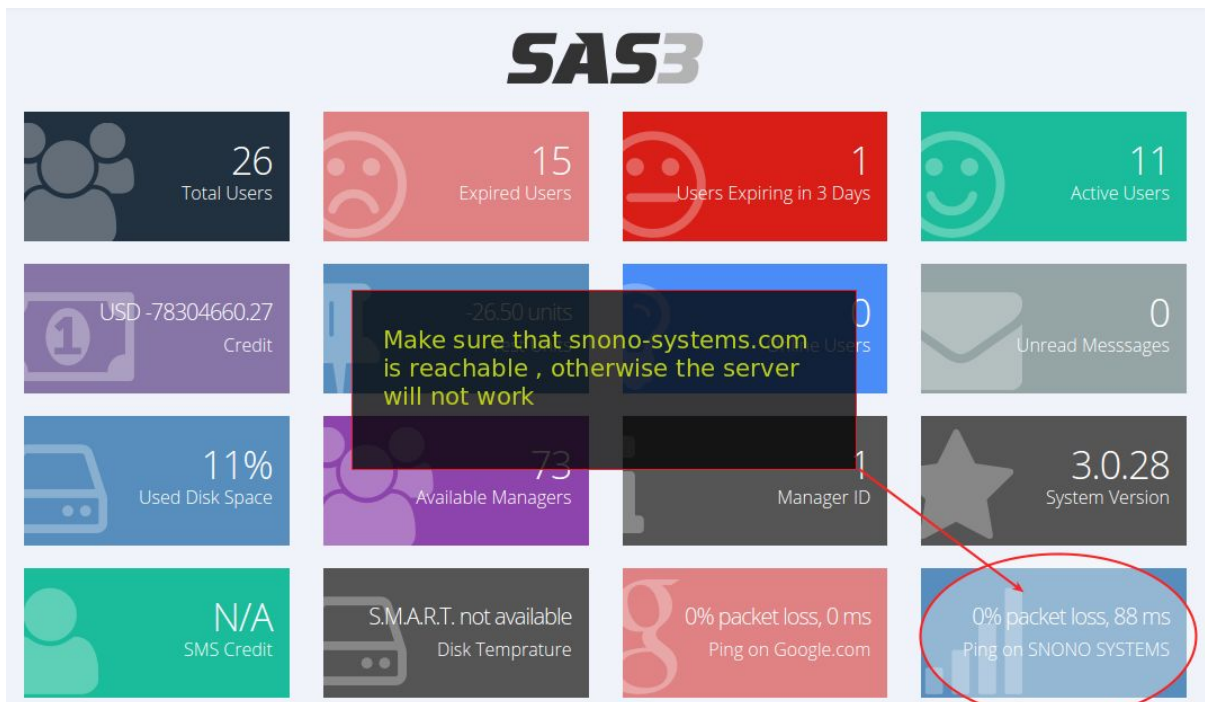


Next , the server must be connected to the network and internet is reachable. Internet is required to activate the server with the demo license.

From your web browser ,login to `http://your_ip_address` using username & password :
admin/admin



In the dashboard , make sure that snono-systems.com is reachable. SAS3 will try to fetch the license from our license server. If it fails to reach our license server, SAS3 will become inactive and will work with limit functionality.



NAS Configuration Mikrotik

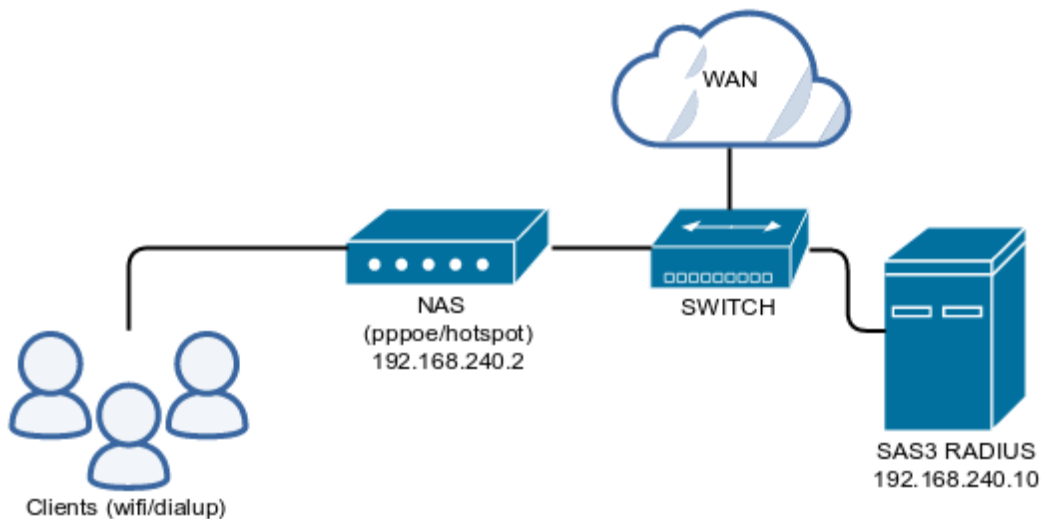


Figure-1
simple NAS setup with RADIUS server.

In this example , we will assume that you have the following configuration :

- Mikrotik RouterOS NAS : 192.168.240.2
- SAS3 RADIUS : 192.168.240.10
- Switch/Hub connecting your WAN,SAS3,NAS all together.
- Users connected to the NAS via PPPoE and/or Hotspot.

To send authentication and accounting requests to Radius server, You have to configure your Mikrotik NAS. Use Winbox to view and edit the configuration. Follow these steps:

1. Connect to your Mikrotik router using Winbox.
2. Select Radius from the main menu.
3. Click + to define a new RADIUS authentication server:
4. In the 'Address' field , add your SAS3 RADIUS IP address.
5. Set the 'Secret' to anything you like , remember it as you will need this later.
6. Timeout is preferred to be 3000 ms or higher.

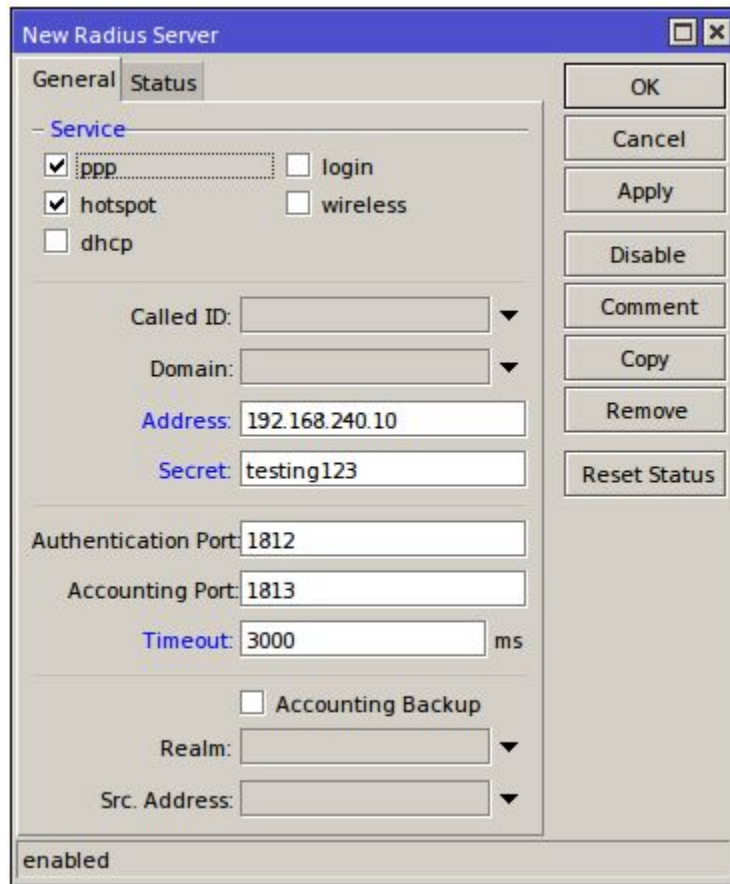


Figure-2
Mikrotik RADIUS client configuration

Set RADIUS incoming port to 1700 from RADIUS->Incoming

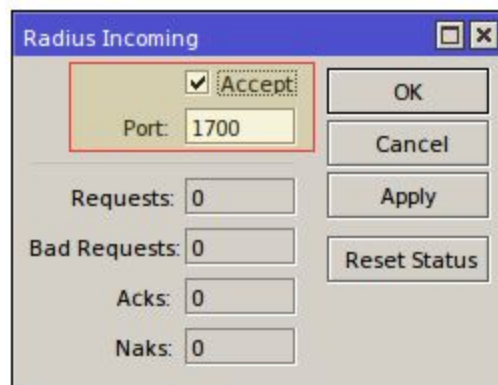
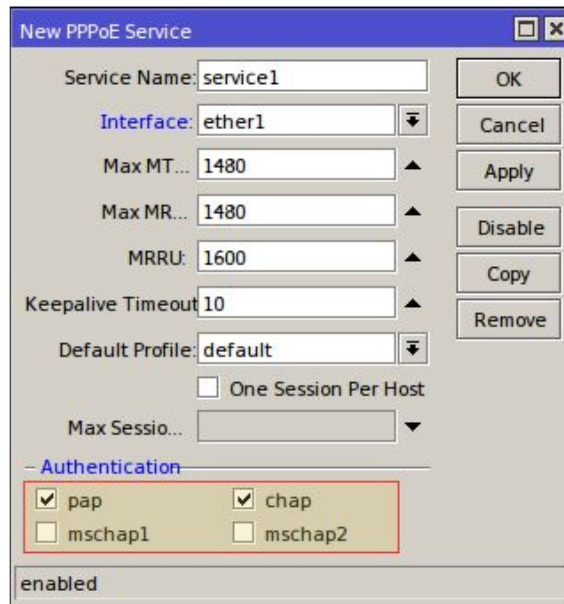


Figure-3

PPPoE setup

Create new PPPoE service from PPP->PPPoE Servers and click on add (+)

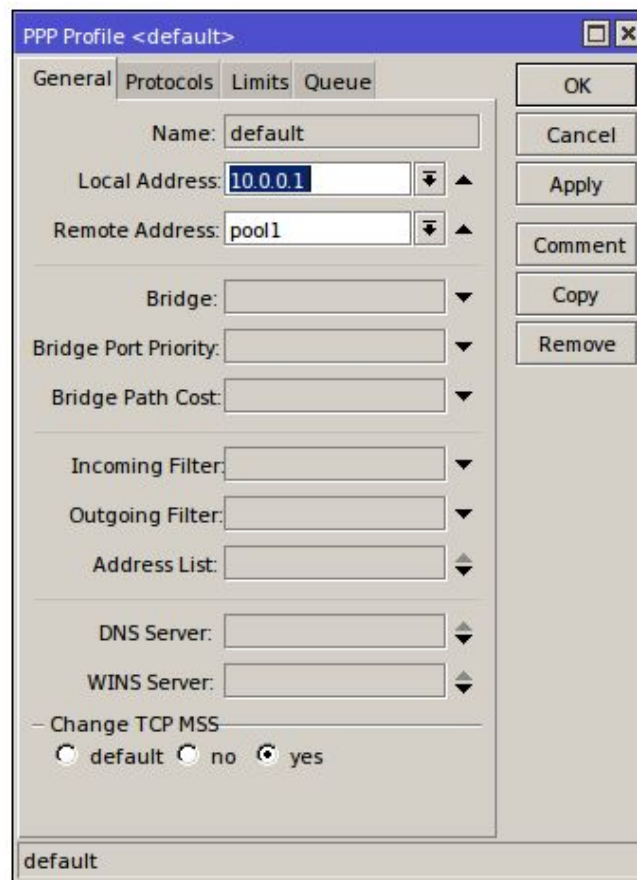


The screenshot shows the 'New PPPoE Service' dialog box with the following configuration:

- Service Name: service1
- Interface: ether1
- Max MTU: 1480
- Max MRU: 1480
- MRRU: 1600
- Keepalive Timeout: 10
- Default Profile: default
- One Session Per Host:
- Max Sessions: (empty)
- Authentication: pap, chap, mschap1, mschap2
- Status: enabled

Figure-4

Make sure that **mschap1** & **mschap2** both are **NOT** checked. Mikrotik is known to have bug in these protocols when enabled with RADIUS server.



The screenshot shows the 'PPP Profile <default>' dialog box with the following configuration:

- Name: default
- Local Address: 10.0.0.1
- Remote Address: pool1
- Bridge: (empty)
- Bridge Port Priority: (empty)
- Bridge Path Cost: (empty)
- Incoming Filter: (empty)
- Outgoing Filter: (empty)
- Address List: (empty)
- DNS Server: (empty)
- WINS Server: (empty)
- Change TCP MSS: default, no, yes
- Status: default

Figure - 5

In **PPP->Profiles**, make sure that you have set proper IP/Pool for the *default* profile. Next, enable accounting in PPP->Secrets->Authentication & Accounting.

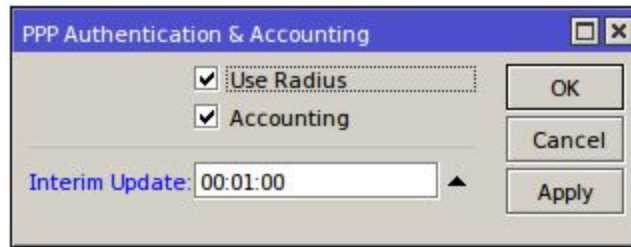


Figure - 6
PPP accounting settings

Hotspot Setup

Assuming you already have functional hotspot setup, go to Hotspot->Server Profiles and select your hotspot profile.

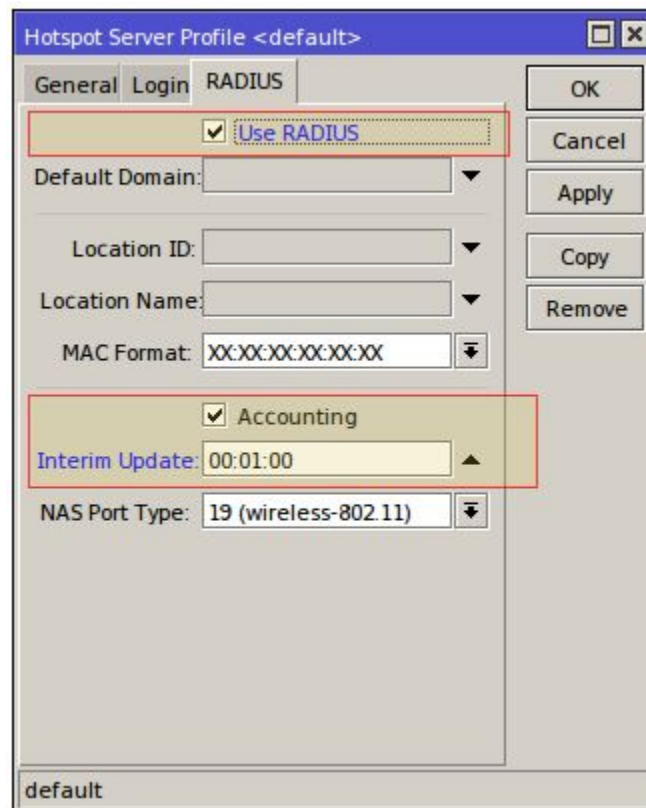
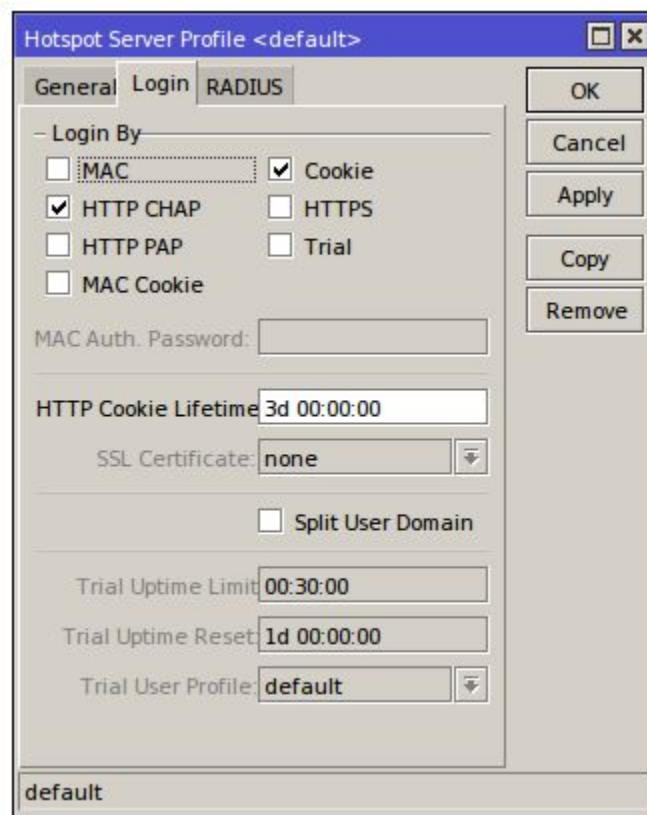


Figure - 7

In the 'Login' Tab set Login by to 'HTTP CHAP & Cookie' as in the picture below :



Hotspot Server Profile <default>

General Login RADIUS

– Login By

MAC Cookie

HTTP CHAP HTTPS

HTTP PAP Trial

MAC Cookie

MAC Auth. Password:

HTTP Cookie Lifetime:

SSL Certificate:

Split User Domain

Trial Uptime Limit:

Trial Uptime Reset:

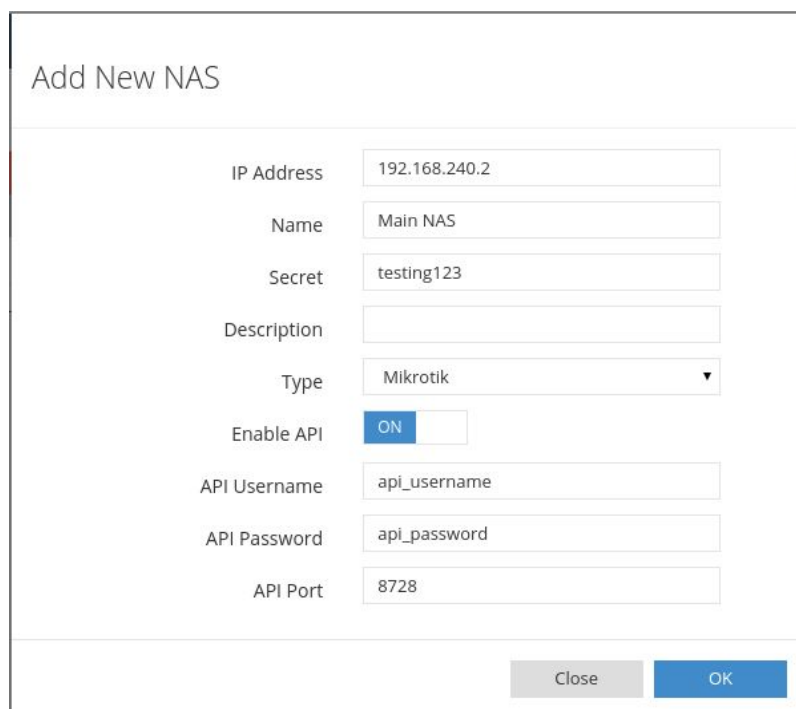
Trial User Profile:

OK Cancel Apply Copy Remove

default

Figure - 8

Setup new NAS in SAS3 , go to **NAS -> Add**



Add New NAS

IP Address:

Name:

Secret:

Description:

Type:

Enable API:

API Username:

API Password:

API Port:

Close OK

Figure - 9

After adding NAS(s) in SAS3 , you must restart the RADIUS service.
Go to **Tools -> System Services** , find RADIUS service , stop it and start it again.

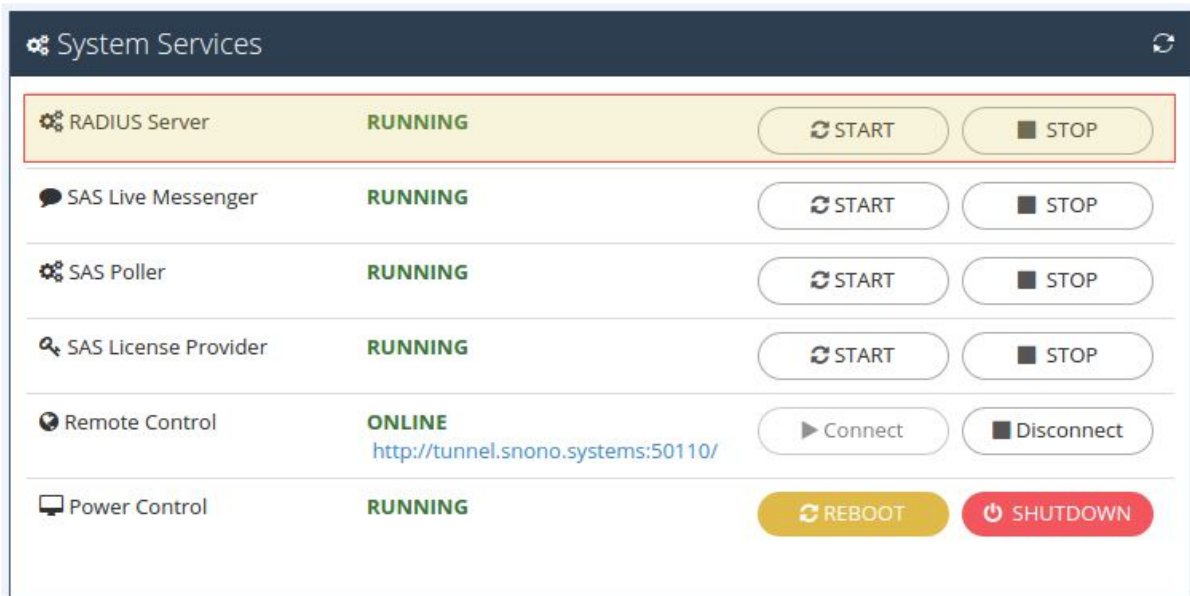


Figure - 10

Now you should be ready to add users. If you have problems with users unable to connect , you can always check the RADIUS Log from Log->RADIUS Server. It will give you a good hint on what is going on.