

# secuPASS

<http://www.secupass.net/>

## secuPASS – a simple SMS authentication service for free WLAN Hotspot

Supported devices: **ZyXEL UAG4100** Unified Access Gateway  
**ZyXEL NXC2500** Wireless LAN Controller  
**ZyXEL N4100** Hotspot/Service Gateway  
... and any **RADIUS authentication device**  
(like **ZyXEL ZyWALL (USG)** series)



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## 1. Introduction

Nowadays, authentication of wireless users is mandatory for legal reasons. For free WLAN Hotspot, the simplest authentication method is to send an SMS code to the user phone number.

**secuPASS** is a simple SMS authentication service for free WLAN Hotspot, based on the **multiOTP**<sup>®</sup> **open source** library, a strong authentication solution (<http://www.multiotp.net>).

**secuPASS** is an online service and use the provider ASPSMS in order to send SMS. You will need to open an account by them and you will have to buy some SMS credits. Prices are fair as you can see on their website (<http://www.aspsms.com>).

Even if it's preferred, you don't need to have a fixed IP address in order to use this service. A dynamic FQDN (like a DynDns.org account) will be enough.

You need to subscribe for one service for each FQDN / IP address (CHF 200.-/year, incl. VAT).

On special request, other providers can be added for your account.

If you have a compatible device providing Internet access already running on your side, **secuPASS** will be installed in less than 5 minutes!

If you want more information about **secuPASS** or any other related products, please contact us at [info@secupass.net](mailto:info@secupass.net).

## 2. Configuration of your device to work with the **secuPASS** service

For your customized service, you will receive a specific tag, like "**yourtag**". In the following documentation, just replace "**yourtag**" by the tag you have received (generally the name of your company).

For the demo, the shared secret key is "**secuP@SSsecret**", but you will receive a specific one for your installation.

### 3. Configuration of the ZyXEL UAG4100

In order to configure ZyXEL UAG4100, a zysh script configuration file is provided. You will have to replace “**yourtag**” by the tag you have received (generally the name of your company), and when the script have been played, you will have to update the shared secret you have received.

```
configure terminal

# First, we clean anything that could conflict for the configuration.
#####
setenv stop-on-error off
web-auth policy flush
web-auth no exceptional-service DNS
no web-auth activate
web-auth default-rule authentication unnecessary no log
web-auth login setting
  type internal
  no login-url
  no logout-url
  no welcome-url
  no session-url
  no error-url
exit

ip http authentication default

no aaa authentication SECUPASS_AUTHENTICATION
no username secuPASS-group
no aaa group server radius SECUPASS_RADIUS

# Now, let's go for the configuration!
#####
aaa group server radius SECUPASS_RADIUS
  server description SECUPASS_RADIUS
  server encrypted-key
  $4$kD4mzCZH$0a6wdSUucHMgpWHgGgulB5TrqcIjNCRx39+jnDqzWlBhLxB2JbB69ePOyOBefS6IJ+FND7/5Uslnk8gWPkdQgsUyqf
  7gTDz5Yx4Lgbpv/hk$
  server group-attribute 11
  server timeout 5
  case-sensitive
  server nas-ip 100.100.100.201
  server host vision-inside.secupass.net auth-port 1812
  server host vision-inside.backup.secupass.net auth-port 1812
exit

username secuPASS-group user-type ext-group-user associated-aaa-server SECUPASS_RADIUS group-id
secuPASS
username secuPASS-group description secuPASS group
username secuPASS-group logon-time-setting default

aaa authentication SECUPASS_AUTHENTICATION local group SECUPASS_RADIUS

ip http authentication SECUPASS_AUTHENTICATION

web-auth login setting
  type external
  login-url http://vision-inside.secupass.net
  no logout-url
  welcome-url http://vision-inside.secupass.net/welcome/
  no session-url
  no error-url
exit

web-auth activate

web-auth exceptional-service DNS

web-auth policy 1
  activate
  authentication force
exit

write
```

## 4. Configuration of the ZyXEL NXC2500

In order to configure ZyXEL NXC2500, a zysh script configuration file is provided. You will have to replace “**yourtag**” by the tag you have received (generally the name of your company), and when the script have been played, you will have to update the shared secret you have received.

```
configure terminal

# First, we clean anything that could conflict for the configuration.
# We set the variable stop-on-error to ignore errors and
# to continue to apply the script if some objects doesn't exist.
#####
setenv stop-on-error off
web-auth policy flush
web-auth no exceptional-service DNS
web-auth authentication default
no web-auth activate
web-auth default-rule authentication unnecessary no log
web-auth login setting
    type internal
    no login-url
    no logout-url
    no welcome-url
    no session-url
    no error-url
exit
no aaa authentication SECUPASS_AUTHENTICATION
no username secuPASS-group
no aaa group server radius SECUPASS_RADIUS

# Now, let's go for the configuration!
#####
aaa group server radius SECUPASS_RADIUS
    server description SECUPASS_RADIUS
    server encrypted-key
    $4$kD4mzCZH$0a6wdSUucHMgpWHgGgulB5TrqcIjNCRx39+jnDqZWlBhLxB2JbB69ePOyOBefS6IJ+FND7/5Uslnk8gWPkdQgsUyqf
    7gTDz5Yx4Lgbpv/hk$
    server group-attribute 11
    server timeout 5
    case-sensitive
    server nas-ip 100.100.100.201
    server host yourtag.secupass.net auth-port 1812
    server host yourtag.backup.secupass.net auth-port 1812
exit

username secuPASS-group user-type ext-group-user associated-aaa-server SECUPASS_RADIUS group-id
secuPASS
username secuPASS-group description secuPASS group
username secuPASS-group logon-time-setting default

aaa authentication SECUPASS_AUTHENTICATION group SECUPASS_RADIUS

web-auth login setting
    type external
    login-url http://yourtag.secupass.net
    no logout-url
    no welcome-url
    session-url http://yourtag.secupass.net
    error-url http://yourtag.secupass.net
exit

web-auth activate
web-auth authentication SECUPASS_AUTHENTICATION

web-auth exceptional-service DNS

web-auth policy 1
    activate
    authentication force
exit

write
```

## 5. Configuration of the ZyXEL N4100

### a) Configure the RADIUS options

**ZyXEL**

**RADIUS**

WIZARD

ADVANCED

- SYSTEM
- WAN / LAN
- SERVER
- AUTHENTICATION
- RADIUS**
- BILLING
- ACCOUNTING
- CREDIT CARD
- KEYPAD
- CUSTOMIZATION
- PASS THROUGH
- FILTERING
- SHARE
- PORTAL PAGE
- ADVERTISEMENT
- WALLED GARDEN
- DDNS
- LAN DEVICES
- SYSLOG
- SESSION TRACE
- SECURE REMOTE
- SNMP
- BANDWIDTH
- WIRELESS
- ACCOUNT
- GENERATOR
- LICENSING

SYSTEM STATUS

SYSTEM TOOLS

LOGOUT

QUICK VIEW

**RADIUS Setup**

Disable

**Enable**

**Accumulation - Idle Time Out** 10 Min(s)(1 - 1440)

**Time to Finish** (Idle Time Out will be Disable)

**Primary RADIUS Server:**

Server IP/Domain Name yourtag.secupass.net

Authentication Port 1812

Accounting Port 1813

Shared Secret Key secuP@SSsecret

**Secondary RADIUS Server:**

Server IP/Domain Name yourtag.backup.secupass.net

Authentication Port 1812

Accounting Port 1813

Shared Secret Key secuP@SSsecret

Retry times when Primary fail 1

**Accounting Service:**

Disable

**Enable**

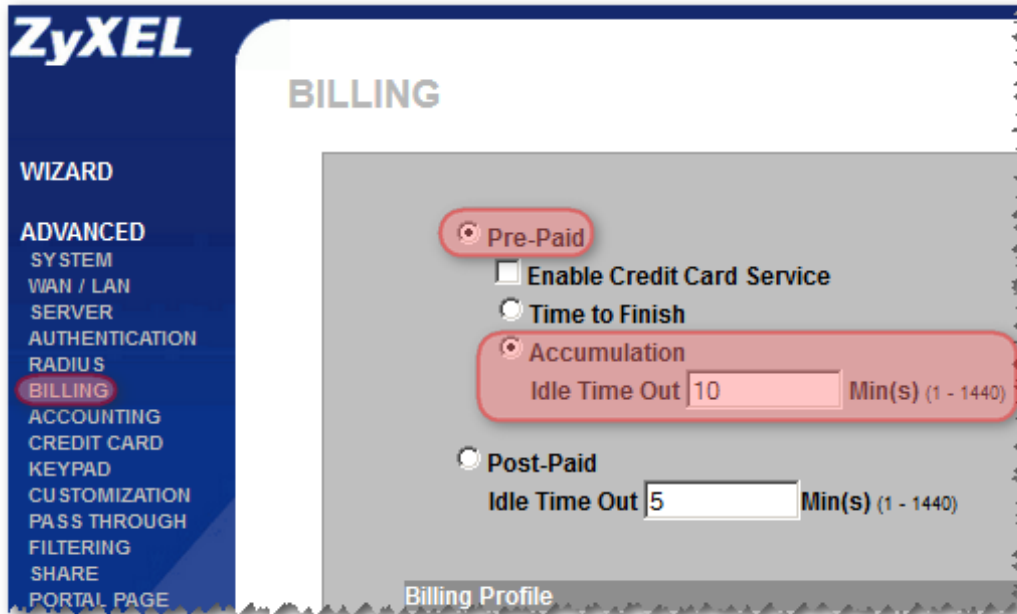
Interim Update Time: 10

**Authentication Method** PAP

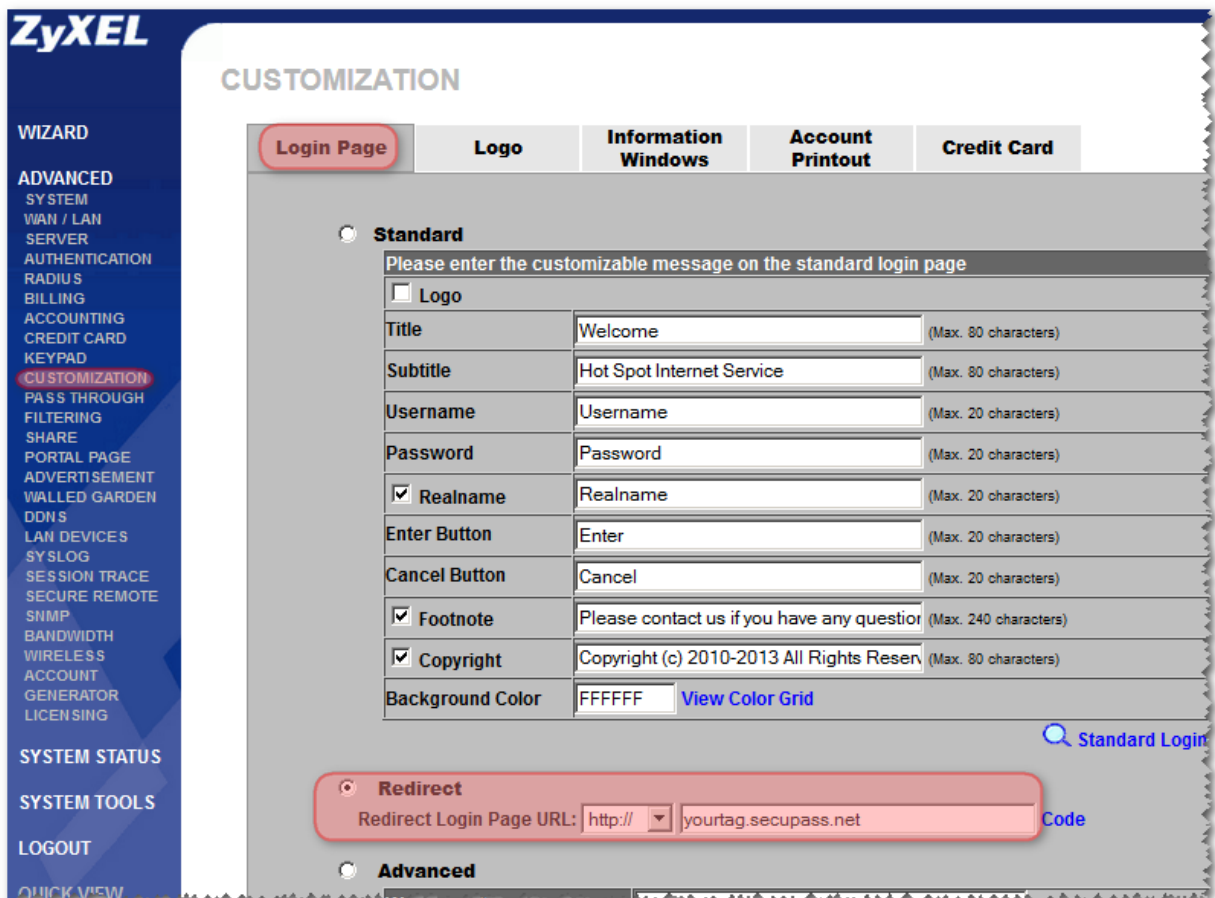
*Accounting service is not used yet, it will be needed later for some additional options.*

Please note that **CHAP Authentication Method is also supported.**

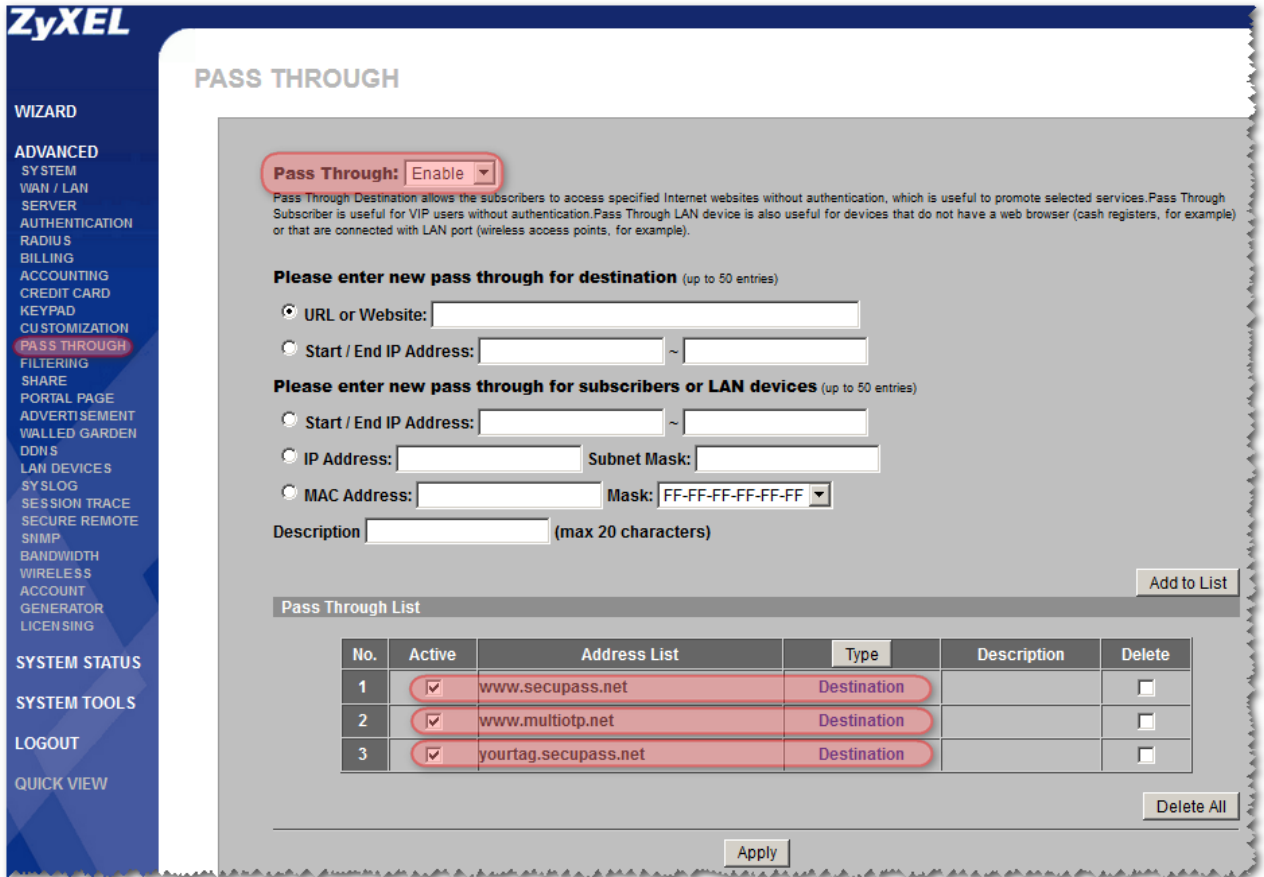
**b) Configure the BILLING options**



**c) Configure the CUSTOMIZATION options**



d) Configure the PASS THROUGH options



That's it already! You are now ready to try the secuPASS SMS authentication service.



## 6. Customization of the login page for ZyXEL ZyWALL (USG) series

We can provide a special script configuration file for ZyXEL ZyWALL (USG) series devices in order to customize the login web page to look like a portal page (phone number and password are stored in cookies) :

**Please enter your mobile phone number and your password**

Your mobile phone number:

Password received or "sms":

One-Time Password:  (Optional)

**Type "sms" in the password field in order to receive your password on your mobile phone.**

Login Reset

## 7. Configuration of any device supporting RADIUS authentication

For any device supporting RADIUS authentication, you will have to setup the following information:

Primary radius server: **yourtag.secupass.net**

Secondary radius server: **yourtag.backup.secupass.net**

Authentication port: **1812**

Accounting port: **1813**

Shared secret: **shared\_secret\_for\_this\_device**

And that's it! In order to receive an authentication code per SMS, authenticate the first time with your mobile phone number (like **0798765432** or **+33487654321**) as username, and type **sms** instead of the password.

## 8. Web gateway

If you are using a Hotspot gateway, you will have the following pages on screen:



**FREE!**






Please enter your mobile phone number and click "Register".  
You will then receive your personal code via SMS.

Mobile phone:   
(41791234567)


[Or do you already have a code?](#)

**SysCo**®  
powered by secuPASS 1.0.0



**FREE!**



- 1 If you don't have a code yet, please click [here to register..](#)
- 2 Please enter your mobile phone number and your code and click on "Login" to access the Internet.

Mobile phone:   
(41791234567)

Code:

Save the code

By clicking "Login", you accept the [General Terms and Conditions](#)

**SysCo**®  
powered by secuPASS 1.0.0

## 9. Customize the web gateway

For advanced users, it's possible to customize the web gateway by uploading several files :

- **config.txt** : the is the configuration file for your authentication  
`client_ip=your_ip_address` (FQDN of a dynamic IP address is also supported)  
`default_language=en|fr|de|it`  
`default_user_group=your_group_name` (returned in the radius attributes)  
`display_sms_code=1|0` (to display the code instead of sending it, during test phase)  
`model=UAG4100|NXC2500|N4100|other` (to define the gateway model)  
`radius_secret=the_radius_shared_secret`
- **default.css** : a specific css for your customized web gateway
- **gtc.pdf** : the main « General Terms and Conditions » document of the WLAN service
- **gtc\_en.pdf, gtc\_fr.pdf, gtc\_fr.pdf, gtc\_it.pdf** : localized version of the GTC
- **powered.png** : logo of your service or your company displayed on the lower right corner
- **sms.txt** : sms provider, account and password  
`originator=mySenderName|mySenderPhoneNumber`  
`provider=aspsms`  
`userkey=myUserKey`  
`password=myPassword`
- **texts.txt** : all texts can be customized in four languages (English, French, German, Italian)  
 (...)
   
`keepCode=Save the code`  
`de-keepCode=Code speichern`  
`fr-keepCode=Enregistrer le code`  
`it-keepCode=Salvare codice`  
 (...)
- **url.txt** : special URLs definition (to define only if needed)  
`auth_error_cgi=CGI authentication error page URL`  
`gw_addr=Gateway address`  
`login_cgi=CGI login page URL`  
`url_form_error=Form error page URL`  
`url_form_login=Form login page URL`  
`welcome_url>Welcome page URL`

## 10. Subscribing for the service

If you are interested by this product, you will have to contact us with some details in order to evaluate your needs:

- The name of your company
- How many hotspot gateways do you have
- What type of Internet gateways do you have

Have a look at the next page in order to have our coordinates.

## 11. About SysCo systèmes de communication sa

SysCo systèmes de communication sa is a 16 years old Swiss based company installed in Neuchâtel in the French part of Switzerland.

Our team is mainly composed by high level engineers and technicians, and we are mainly providing consulting services and customized development, beside various Internet services and tailored deployments.

Security issues, remote access solutions and communication systems in general are some of our activities for which we provide also several tools to the community.

Beside the **secuPASS** solution and their derived commercial products, we have also provided several PHP tools to the community like **multiOTP<sup>®</sup> open source** (a strong authentication library), a token grid class (to generate and use grids of tokens on paper), a radius client class (to authenticate in pure PHP against a radius server) or also syslog client class (to send syslog information from a PHP script).

We are also monitoring a lot of servers and devices, and therefore, we have developed some free tools to monitor a temperature or power usage monitor for APC UPS devices, logical volumes and drives status monitor for HP RAID controllers, drives and devices monitor for ESXi host servers, a Synology package to monitor the various parameters of these NAS, etc.

Don't hesitate to contact us if you need some specific support or if you want to develop a project with us. Our main language is French, but we are speaking and reading English and German as well. Community support is only provided per email at [developer@sysco.ch](mailto:developer@sysco.ch).

André Liechti is the technical director of the company, with a strong background of electronics, computer sciences and communication systems experience. He is still spending regularly hours to write code lines for their customers, but also for the community.

The strong financial and management knowledge of our administrative director, Fabien Paratte, is also shared with our customers to help those managing new projects and challenges.

### SysCo systèmes de communication sa

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