



# **UAG Series**

Unified Access Gateway

Version 4.00

Edition 1, 04/2014

## **Application Note**

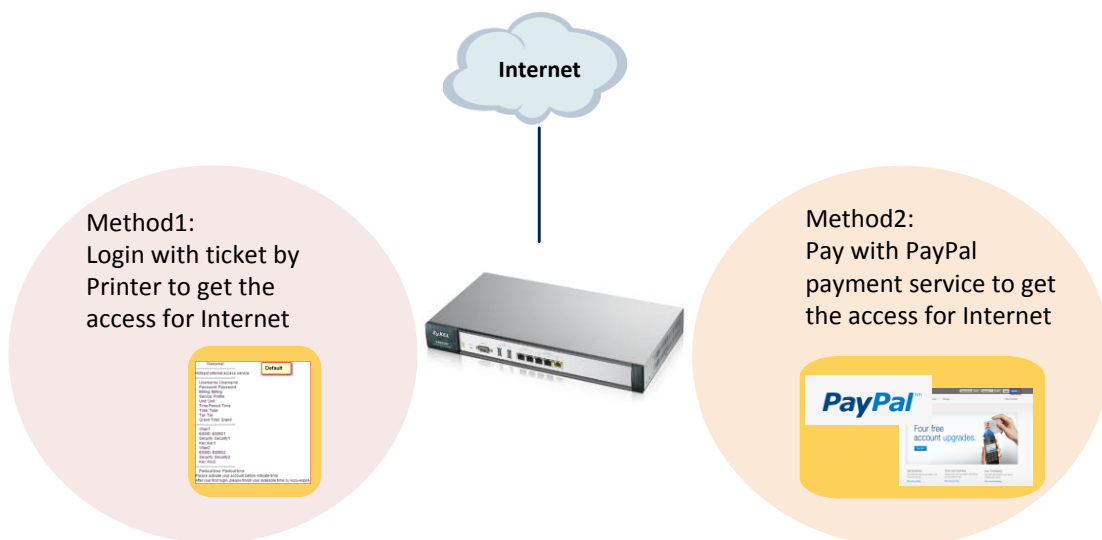
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## Scenario 1 – How to Activate a Paid Access Hotspot

### 1.1 Application scenario

In the hotspot, there are various customer need access Internet, we can use UAG to effective control the customer access for Internet. If we want customer use payment service to access Internet, there are two main ways can be used on UAG: one is use Printer, and another one is PayPal payment service. For Printer, customer can buy ticket from reception desk, which generated by thermal printer. And for PayPal payment service, customer can pay with their PayPal account to access Internet by browser on smart phone or laptop.



#### Network conditions:

##### SP350E:

Default IP address (DHCP): 172.16.0.200/16

User Name: admin

Password: 1234

Port Number: 9100

#### Goals to achieve:

- 1) Easier control customer access Internet with payment service.
- 2) Customer can pay with PayPal or buy ticket from reception, then they can get access for Internet promptly.

## 1.2 Login with ticket by Printer to get the access for Internet

### UAG configuration:

#### Step 1: Setting Printer Manager GUI

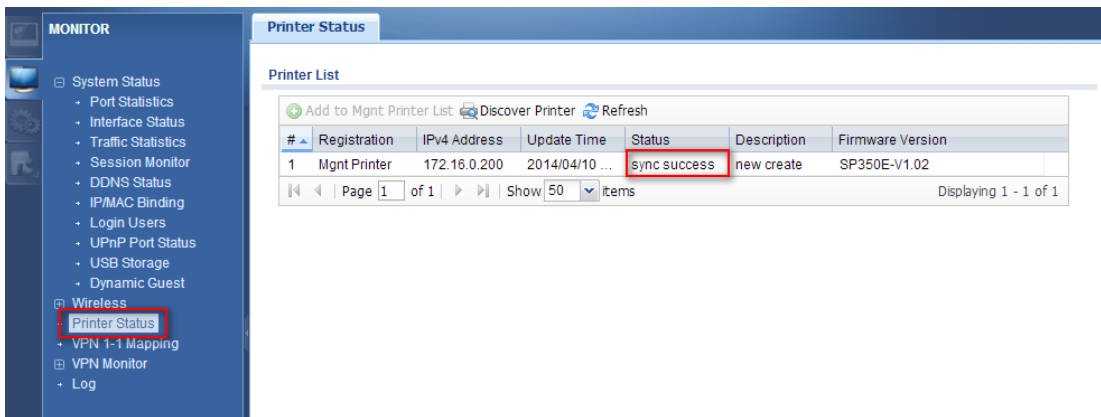
(1) **Configuration > Printer Manager > check General > Edit Port with printer: 9100.**

The screenshot shows the ZyXEL UAG Configuration interface. On the left is a sidebar with a 'CONFIGURATION' menu. The 'Printer Manager' option is highlighted. The main area shows the 'General' tab of the 'Printer Manager' configuration. Under 'Printer Settings', the 'Port' is set to '9100'. Below this, there is an 'Encryption' section with a 'Secret Key' field. Under 'Printout', the 'Number of Copies' is set to '1'. Below this is a 'Printer List' table with columns for '#', 'Status', 'IPv4 Address', and 'Description'. The table is currently empty, showing 'Page 1 of 1' and 'No data to display'. At the bottom, there is a 'Printer Firmware Information' section showing 'Current Version: SP350E-V1.02'. 'Apply' and 'Reset' buttons are at the bottom right.

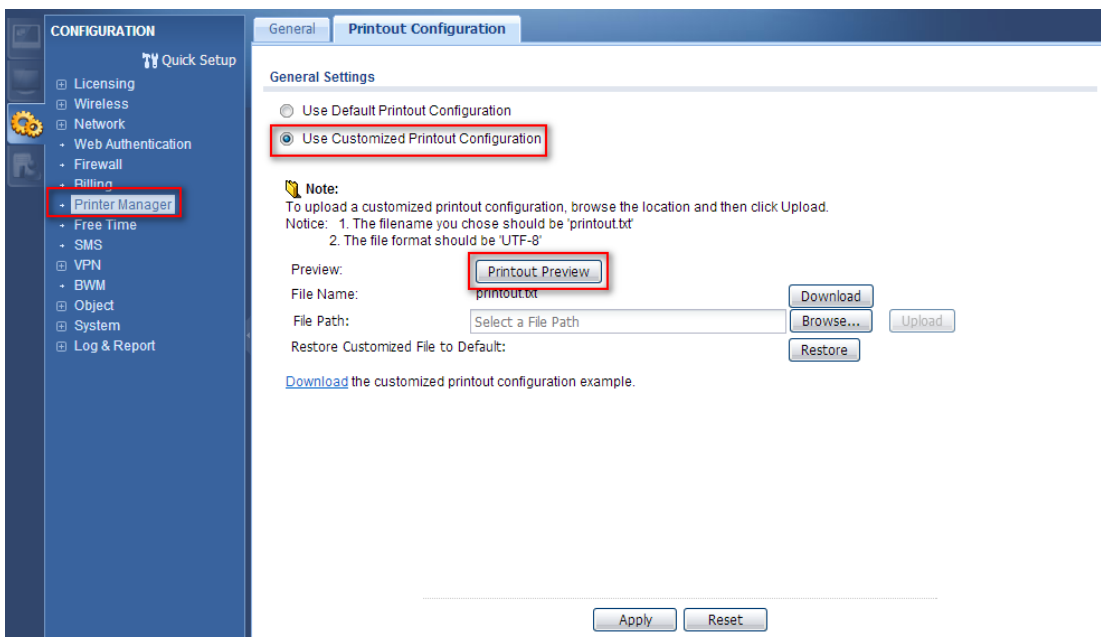
(2) Add a printer with the printer's **IP address** in the GUI.

The screenshot shows the 'Add Rule' dialog box. It has a checkbox labeled 'Enable Printer Manager' which is checked. Below this is the 'IPv4 Address' field, which contains the value '172.16.0.200'. Below the IP address field is the 'Description' field, which contains the text 'new create'. At the bottom right are 'OK' and 'Cancel' buttons.

Step 2: **Configuration > Monitor > Printer Status > check the Status with “sync success”.**



Step 3: Select **Configuration > Printer Manager > check Printout Configuration > you can choose Use Customized Printout Configuration** to upload a customized printout configuration. Then you can customize the ticket information by downloading the example and modifying the ticket.



Step 4: **Configuration > Printer Manager** > check **Printout Configuration** > you can choose **Use Default** or **Customized Printout Configuration** > Preview: press **Printout Preview** > pop out the Default printout configuration or the Customized printout configuration ticket format for preview.



## 1.3 Pay with PayPal payment service to get the access for Internet

### Create and Set test account on the PayPal server:

About Register an account on the PayPal server, we have registered a test account for test the function on this, please refer to the Appendix part.

**UAG configuration:**

Step 1: **Configuration > Billing > Payment Service > Enable Payment Service > Enter the seller Account and Identity Token.**

The screenshot shows the ZyXEL UAG configuration interface. On the left is a sidebar with a 'CONFIGURATION' menu where 'Billing' is highlighted. The main panel has tabs for 'General', 'Billing Profile', 'Discount', and 'Payment Service', with 'Payment Service' being the active tab. Under 'Payment Service', there are sub-tabs for 'General' and 'Custom Service'. The 'General' sub-tab is active, showing the 'General Setting' section with a checked 'Enable Payment Service' option. Below this is the 'Payment Provider Selection' section, which contains fields for 'Account' (seller-aaa@gmail.com), 'Currency' (Euro(EUR)), 'Identity Token' (jnoqJPWvM9JWMEpIGCfZOE01cHEwQd2McUS5e38g), and 'Payment Gateway' (www.sandbox.paypal.com/). The 'Identity Token' and 'Payment Gateway' fields are highlighted with a red box. At the bottom, there is an 'Account Delivery Method' section with a 'Delivery Method' dropdown set to 'On-Screen'. 'Apply' and 'Reset' buttons are at the bottom right.

- (1) You can use Seller account Login to [www.sandbox.paypal.com](http://www.sandbox.paypal.com) and go to **profile > Website payments preferences** to check the identity token.

**Payment Data Transfer (optional)**

Payment Data Transfer allows you to receive notification of successful payments as they are made. The use of Payment Data Transfer depends on your [system configuration](#) and your Return URL. Please note that in order to use Payment Data Transfer, you **must** turn on Auto Return.

Payment Data Transfer: ☒ On  
☐ Off

Identity Token: xnS25wofWOW9JGTmGtyglzKQZO-1f5KdKg0z-AN5pjH1FUgQG5OmvdT18

- (2) Enter the **Payment Gateway** with - <https://www.sandbox.paypal.com/cgi-bin/webscr>

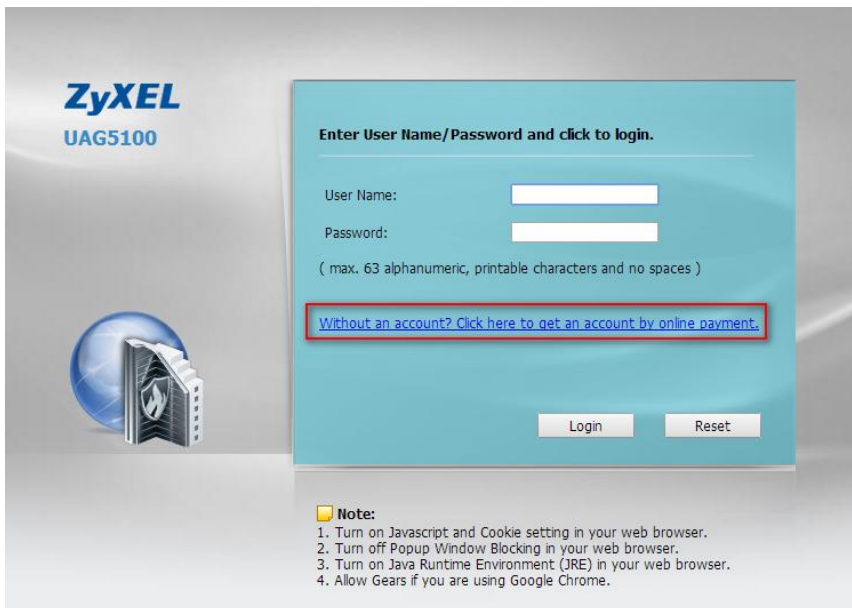
Since it's the test web site so the payment gateway should setup as

<https://www.sandbox.paypal.com/cgi-bin/webscr>

But not default <https://www.paypal.com/cgi-bin/webscr>

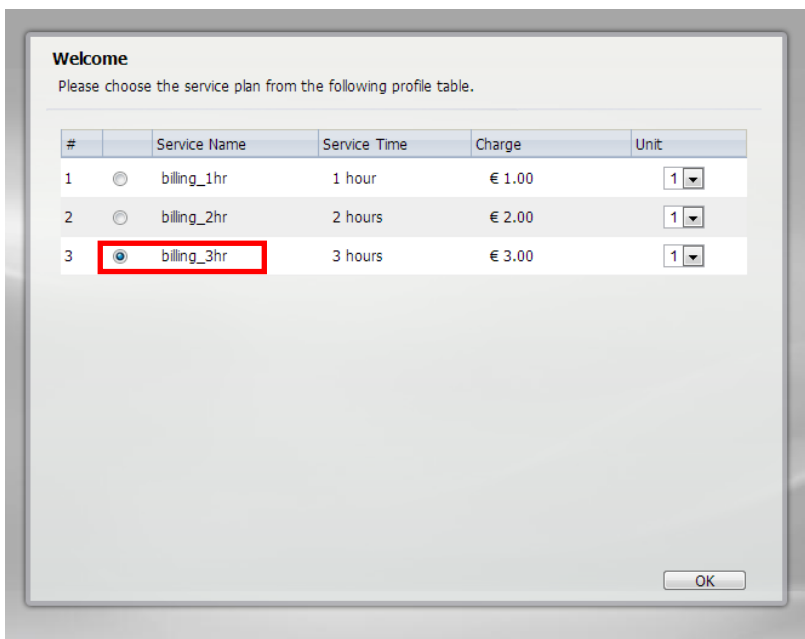
Step 2: Test the dynamic account to pay the bill by payment function

- (1) Open the **Login page**, after enable the payment function, then you will saw the link on the login page.



The image shows the ZyXEL UAG5100 login page. On the left is the ZyXEL logo and a graphic of a globe with a building. The main area is a light blue box with the text "Enter User Name/ Password and click to login." Below this are input fields for "User Name:" and "Password:". A note below the password field states "( max. 63 alphanumeric, printable characters and no spaces )". A red box highlights a link that says "Without an account? Click here to get an account by online payment." Below the link are "Login" and "Reset" buttons. At the bottom, there is a "Note:" section with four numbered instructions: 1. Turn on Javascript and Cookie setting in your web browser. 2. Turn off Popup Window Blocking in your web browser. 3. Turn on Java Runtime Environment (JRE) in your web browser. 4. Allow Gears if you are using Google Chrome.

- (2) Click the link on the screen > then the page will redirected to billing profile page.



The image shows a "Welcome" dialog box with the text "Please choose the service plan from the following profile table." Below this is a table with five columns: #, Service Name, Service Time, Charge, and Unit. There are three rows of service plans. The third row, "billing\_3hr", is highlighted with a red box. At the bottom right of the dialog is an "OK" button.

#	Service Name	Service Time	Charge	Unit
1	billing_1hr	1 hour	€ 1.00	1 ▼
2	billing_2hr	2 hours	€ 2.00	1 ▼
3	billing_3hr	3 hours	€ 3.00	1 ▼

- (3) As the test, you can **Select 3 hour** billing profile > click **ok** > then the device will redirect to PayPal authentication page.

#### HongSong Chen's Test Store

**Your order summary**

Descriptions	Amount
180 minutes	€3.00
Item price: €3.00	
Quantity: 1	
<b>Item total</b>	<b>€3.00</b>
<b>Total €3.00 EUR</b>	

**Choose a way to pay**

**Pay with my PayPal account**

Log in to your account to complete the purchase

Email

PayPal password

**Log In**

[Forgot email or password?](#)

**Don't have a PayPal account?**

(Optional) Join PayPal for faster future checkout

[Cancel and return to HongSong Chen's Test Store.](#)

- (4) After login to PayPal page, you can make sure your order.

#### HongSong Chen's Test Store

**Your order summary**

Descriptions	Amount
180 minutes	€3.00
Item price: €3.00	
Quantity: 1	
<b>Item total</b>	<b>€3.00</b>
<b>Total €3.00 EUR</b>	

**PayPal Electronic Communications Delivery Policy Consent**

This will just take a minute and then you can complete your transaction.

We've updated our Electronic Communications Delivery Policy. Please read it and consent so we can send your account information electronically, including your payment confirmation.

Please confirm that:

☐ Yes, I've read and agree to the [Electronic Communications Delivery Policy](#). I understand that PayPal will provide me with information about my account electronically. I confirm that I can access emails, web pages, and PDF files.

**Agree and Continue**

[Can I decline?](#)

[Cancel and return to HongSong Chen's Test Store.](#)

(5) After click the **Agree and Continue** button > then you can click **Pay Now** button to pay the bill.

#### HongSong Chen's Test Store

**Your order summary**

Descriptions	Amount
180 minutes	€3.00
Item price: €3.00	
Quantity: 1	
<b>Item total</b>	<b>€3.00</b>
<b>Total €3.00 EUR</b>	

**Review your information**

**Pay Now**

**Shipping address** [Change](#)

HongSong Chen  
1 Main St  
San Jose, CA 95131  
United States  
☒ Use as preferred shipping address  
Note to seller: [Add](#)

**Payment methods** [Change](#)

PayPal Balance \$4.20 USD

PayPal Conversion Rate as of Jun 3, 2013: 1 U.S. Dollar = 0.714485 Euros

PayPal gift card, certificate, reward, or other discount [Redeem](#)  
View [PayPal policies](#) and your payment method rights.

**Contact information**  
buyer-a@gmail.com

**Pay Now**

(6) After click **Pay Now** button > PayPal will pop out following web page > then redirect the login information to you after 10 seconds.

#### HongSong Chen's Test Store

**Thanks for your order**

Your payment of €3.00 EUR is complete.

You're now going back to HongSong Chen's Test Store.

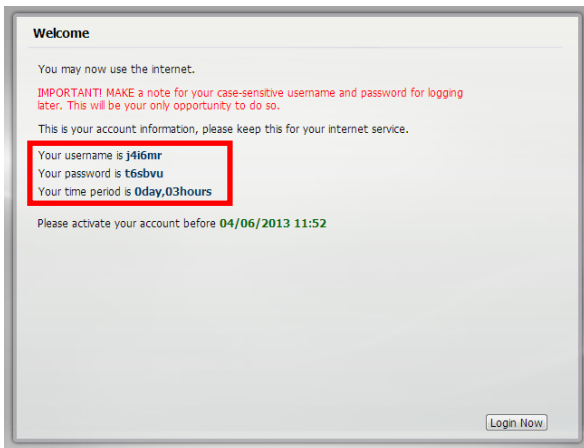
If you are not redirected within 10 seconds, [click here](#).

PayPal. The safer, easier way to pay.

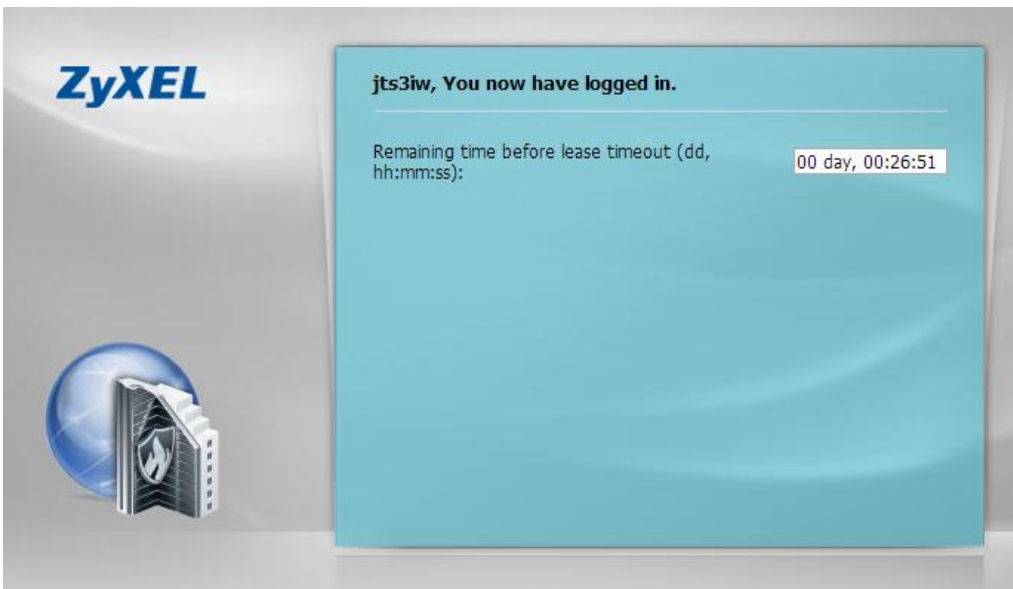
For more information, read our [User Agreement](#) and [Privacy Policy](#).

Test Site

(7) You can see the login username and password on the screen.



(8) Then you can login device with the username and password in time period.



Step 3: Check the balance in buyer and seller account.

(1) Login to **Buyer account** to check on sandbox web site.

The screenshot shows the PayPal Buyer account dashboard for a user named HongSong Chen. The account is verified and has a balance of \$995.80 USD. The dashboard includes a navigation bar with options like My Account, Send Money, Request Money, Merchant Services, and Products & Services. A table titled 'My recent activity' shows two transactions: a payment to HongSong Chen's Test Store for -€3.00 EUR and a transfer from PayPal for \$1,000.00 USD. The right sidebar contains notifications and account tools.

PayPal

Log Out | Security and Protection Search

English

My Account Send Money Request Money Merchant Services Products & Services

Overview Add Money Withdraw History Statements Resolution Center Profile

Welcome, HongSong Chen

Account Type: Personal Upgrade Status: Verified Account Limits: View Limits

PayPal balance: \$995.80 USD

My recent activity Payments received Payments sent View all of my transactions

My recent activity - Last 7 days (May 27, 2013-Jun 3, 2013)

Archive What's this Payment status glossary

Date	Type	Name/Email	Payment status	Details	Order status/Actions	Gross
Jun 3, 2013	Payment To	HongSong Chen's Test Store	Completed	Details		-€3.00 EUR
Jun 3, 2013	Transfer From	PayPal	Completed	Details		\$1,000.00 USD

Archive What's this

Notifications

- Add a mobile phone number
- Add a home phone number
- Policy Updates

My account tools

- PayPal Mobile

(2) Login to **Seller account** to check on sandbox web site.

The screenshot shows the PayPal Seller account dashboard for a user named HongSong Chen. The account is verified and has a balance of \$3.40 USD. The dashboard includes a navigation bar with options like My Account, Send Money, Request Money, Merchant Services, Auction Tools, and Products and Services. A table titled 'PayPal balance' shows the current balance in U.S. Dollar (Primary) as \$3.40 USD. The right sidebar contains account actions and quick links. The bottom section includes tools like Invoicing, Gift certificates, Virtual Terminal, and Fraud Management.

PayPal

Log Out | Help | Security Center

My Account Send Money Request Money Merchant Services Auction Tools Products and Services

Overview Add Funds Withdraw History Resolution Center Reports Profile

Welcome HongSong Chen

Business: HongSong Chen's Test Store (seller-a@gmail.com) Account status: Verified Application status: Approved

Search transactions Search

PayPal balance Options

Currency Balance

U.S. Dollar (Primary) \$3.40 USD

Total in USD \$3.40 USD

View transactions

- All account activity
- Payments received
- Payments sent
- Account withdrawals
- Advanced search

Tools

- Invoicing
- Gift certificates
- Virtual Terminal
- Fraud Management
- My Saved Buttons
- Multi-order shipping
- Recurring Payments
- Manage Multiple Users

Account actions

- My Business Setup
- Verify a credit card

Quick links

- Policy updates
- Tax Documents
- Refund Tutorial

## Scenario 2 – How to Activate a Free Access Hotspot

### 2.1 Application Scenario

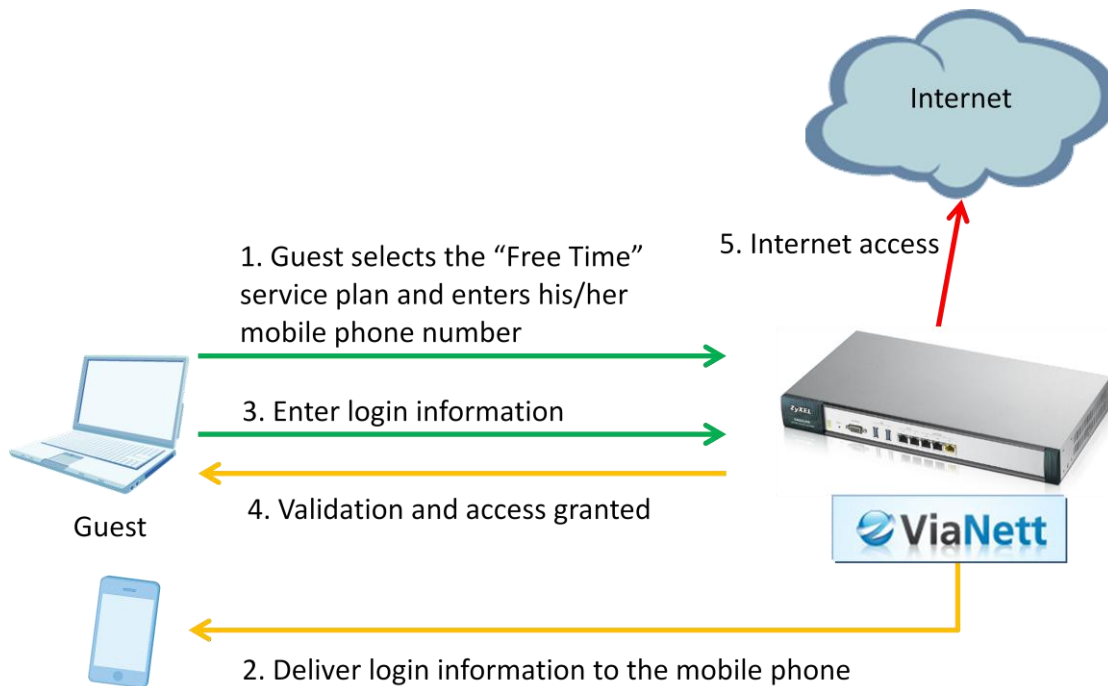
Some hotels need to provide free Internet services to hundreds of guests on a daily basis, and managing Internet access for so many people can be very complicated without the right equipment. With web authentication such as user agreement and web portal, hotel guests are redirected to the web-based authentication portal upon the first attempt to access the network. In some countries, the law requires to identify and track users who use public internet access. UAG can authenticate people by forcing them to receive an authentication code via SMS to their phone. In this way, UAG can authorize user Internet access via their mobile phone number and keep log on the device in case of illegal activities in the hotspot. Guests can get free access to the Internet in a matter of seconds simply by entering all required personal contact information and agreeing to the policy of user agreement without a guest account, or browse the Internet free of charge for a specified period of time by entering his or her mobile phone number to receive guest account information by SMS.

(Note: UAG2100 SMS ticketing function is license optional.)



**User Agreement**

**Free Time**



## 2.2 Configuration Guide

### Network conditions:

WAN: 10.59.3.54

LAN 1: 172.16.0.1/255.255.0.0

User's laptop: 172.16.2.0

### Goals to achieve:

- (1) Users must fill in personal information and accept the service usage agreement before they can access the Internet. After the form is submitted, the advertisement web site is pop up in a new window.
- (2) Allow any user to get account information by SMS and use the Internet for a limited free time.

### USG configuration:

Task 1. Configure User Agreement to let users access the Internet without a guest account by agreeing to the policy of user agreement. Add advertisement web page as the first page when an authenticated user is attempts to access the Internet.

Step 1: **Configuration > Web Authentication > check "User Agreement"**

- (1) Enable Idle Detection. The default value of idle timeout is 3 minutes.
- (2) Select "Internal User Agreement"
- (3) Add authentication policy for every source.

Welcome admin | [Logout](#) | [Help](#) | [About](#) | [Site Map](#) | [Object Reference](#) | [Console](#)

**Web Authentication** | Walled Garden | Advertisement

### General Settings

Authentication: ☐ None ☐ Web Portal ☒ **User Agreement**

☒ Enable Idle Detection  
 Idle timeout:  (1-60 minutes)  
 Reauthentication Time:  (0-1440 minutes, 0 is unlimited)

☒ **Internal User Agreement** ☐ Use Customized Web Pages

**Note:**  
 To upload customized user agreement pages, browse to the location of the ua.zip file and then click upload. You can preview ua\_agree.html and ua\_welcome.html within the ua.zip file. (Please keep ua\_agree.html, ua\_welcome.html, ua.css file name and location.)

Preview:    
 File Name: ua.zip   
 File Path:     
 Restore Customized File to Default:

[Download](#) the customized internal user agreement example.

☐ External User Agreement  
 Agreement URL:   
 Welcome URL:  (optional)  
[Download](#) the external user agreement example.

### Exceptional Services

[Add](#) [Remove](#)

#	Exceptional Services
1	DNS

Page 1 of 1 | Show 50 items | Displaying 1 - 1 of 1

### Web Authentication Policy Summary

[Add](#) [Edit](#) [Remove](#) [Activate](#) [Inactivate](#) [Move](#)

Status	Priority	Source	Destination	Schedule	Authentication	Description
	1	any	any	none	force	
	Default	any	any	none	unnecessary	n/a

Page 1 of 1 | Show 50 items | Displaying 1 - 2 of 2

## Step 2: Configuration > Advertisement

- (1) Enable Advertisement
- (2) Add the URL of the website

**Web Authentication** | Walled Garden | **Advertisement**

### General Settings

☒ Enable Advertisement

### Advertisement Summary

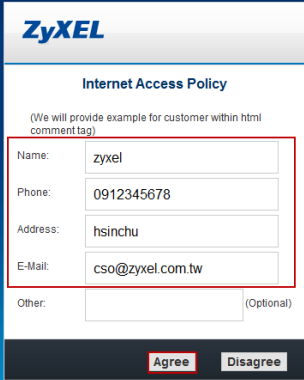
[Add](#) [Edit](#) [Remove](#)

#	Name	URL
1	ZyXEL	<a href="http://www.zyxel.com">http://www.zyxel.com</a>

Page 1 of 1 | Show 50 items | Displaying 1 - 1 of 1

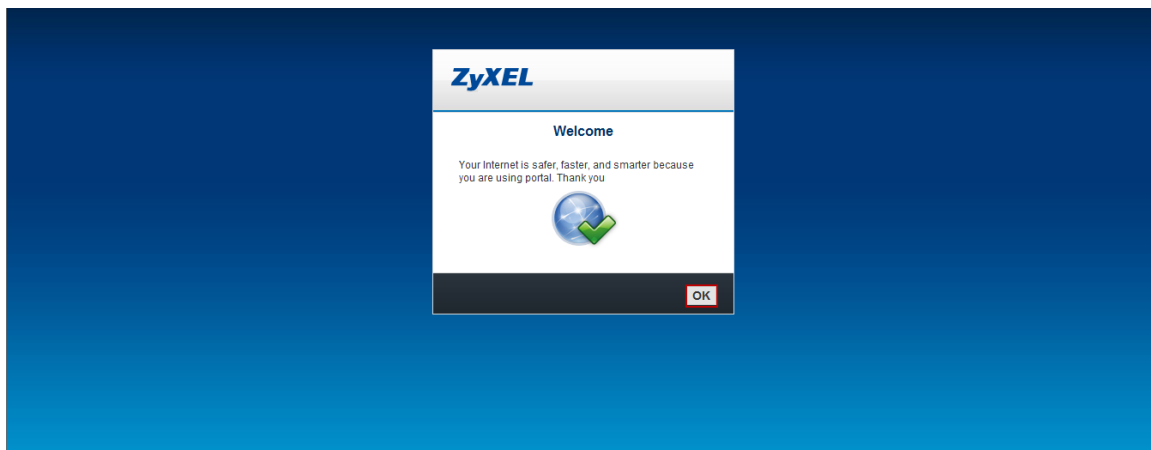
**Verification:**

1. When the user opens the browser, he/she will be redirected to the user agreement page. Fill in all required information and click “Agree”.

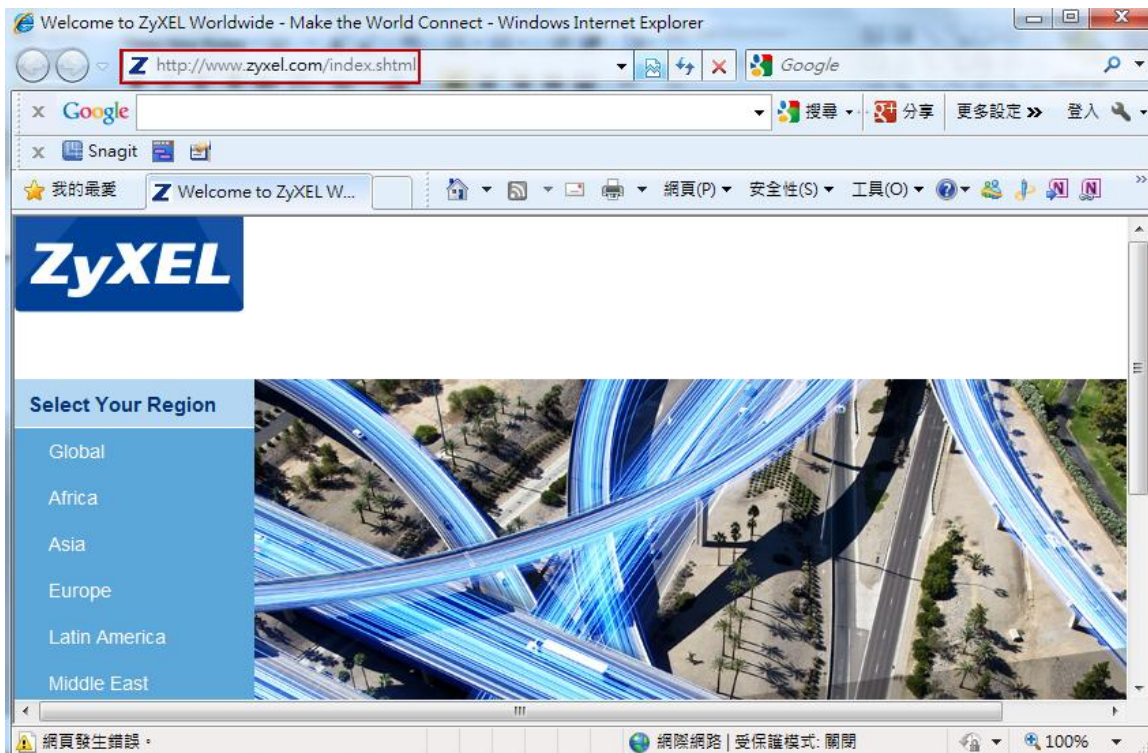


The image shows a web form titled "ZyXEL Internet Access Policy". Below the title, a note states: "(We will provide example for customer within html comment tag)". The form contains several input fields: "Name:" with the value "zyxel", "Phone:" with "0912345678", "Address:" with "hsinchu", and "E-Mail:" with "cso@zyxel.com.tw". There is also an "Other:" field which is empty, followed by the text "(Optional)". At the bottom of the form, there are two buttons: "Agree" and "Disagree". The "Agree" button is highlighted with a red border.

2. Click “OK” and then the user can access the Internet.

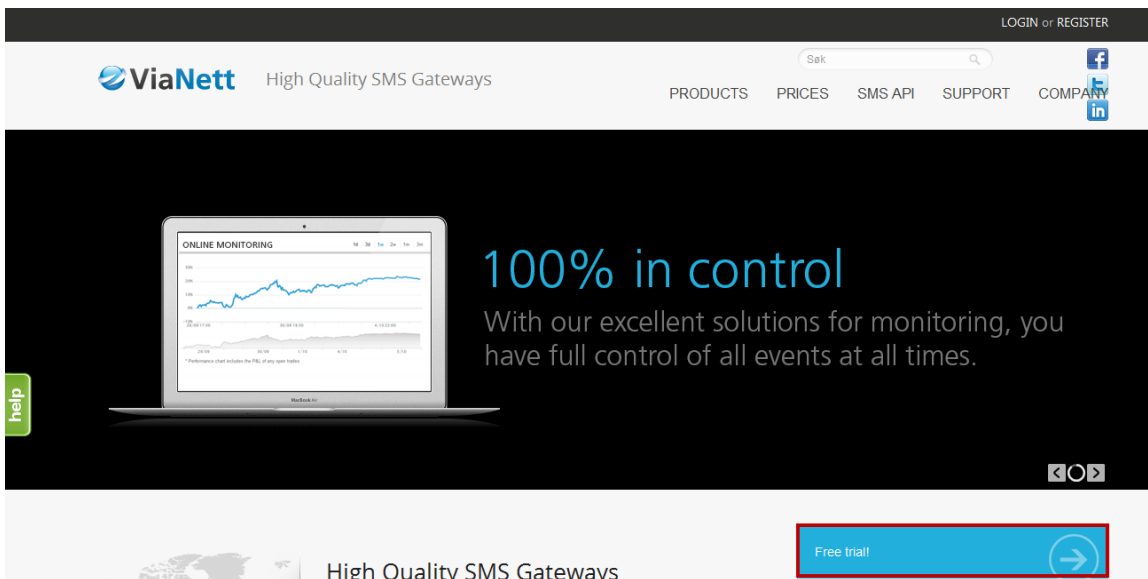


3. The advertisement web page will be displayed in a new frame as the first page whenever the user connects to the Internet.



Task 2. Enable SMS service on UAG and select SMS as the delivery method in Free Time.

Step 1: Get an account from ViaNett at <http://www.vianett.com>. You can register a trial account to test the SMS function.



Step 2: After ViaNett account is ready, go to **Configuration > SMS**

- (1) Enable SMS.
- (2) Fill in your local phone country code as the default country code.
- (3) Add authentication policy for every source.

The screenshot shows the 'CONFIGURATION' sidebar on the left with 'SMS' selected. The main panel is titled 'SMS' and contains 'General Settings' and 'ViaNett Configuration' sections. In 'General Settings', 'Enable SMS' is checked, and the 'Default country code for phone number' is set to '886' (1-4 digit). The 'ViaNett Configuration' section, highlighted with a red box, contains three fields: 'User Name' (cso@zyxel.com.tw), 'Password' (masked with dots), and 'Retype to Confirm' (masked with dots).

Step 3: **Configuration > Free Time**

- (1) Enable Free Time and set up the free time period. By default, the Reset time will be at AM 00:00. You can also setup how many times a MAC address can access the internet.
- (2) Select “SMS” to deliver login information to the mobile phone.

The screenshot shows the 'CONFIGURATION' sidebar on the left with 'Free Time' selected. The main panel is titled 'Free Time' and contains 'General Settings' and a 'Note' section. In 'General Settings', 'Enable Free Time' is checked. The 'Free Time Period' is set to '30' (5-1440 minutes), 'Reset Time' is '00:00' with a clock icon, and 'Maximum Registration Number Before Reset Time' is '1' (1-5). The 'Delivery Method' dropdown menu is set to 'SMS' and is highlighted with a red box. Below this, a 'Note' section states: 'If you want to configure ssid profile settings of the account, please go to [Billing](#).'

Step 4: **Configuration > Web Authentication > check “Web Portal”**

- (1) Select Internal Web Portal

## (2) Add authentication policy for every source.

**Web Authentication** | Walled Garden | Advertisement

---

**General Settings**

Authentication: ☐ None ☒ **Web Portal** ☐ User Agreement

☒ **Internal Web Portal**

☐ External Web Portal

Login URL:

Logout URL:  Optional

Welcome URL:  Optional

Session URL:  Optional

Error URL:  Optional

[Download](#) the external web portal example.

---

**Exceptional Services**

[Add](#) [Remove](#)

# **Exceptional Services** ^

1 DNS

Page 1 of 1 | Show 50 items | Displaying 1 - 1 of 1

---


**Web Authentication Policy Summary**

[Add](#) [Edit](#) [Remove](#) [Activate](#) [Inactivate](#) [Move](#)

Status	Priority	Source	Destination	Schedule	Authentication	Description
	1	any	any	none	force	
	Default	any	any	none	unnecessary	n/a

**Verification:**

1. Users will be redirected to the login page before being permitted to access the Internet. Click on the link to get a free account.



**ZyXEL**  
UAG5100

**Enter User Name/Password and click to login.**

User Name:

Password:

( max. 63 alphanumeric, printable characters and no spaces )

[Without an account? Click here to get a free account.](#)

Login Reset

**Note:**

1. Turn on Javascript and Cookie setting in your web browser.
2. Turn off Popup Window Blocking in your web browser,
3. Turn on Java Runtime Environment (JRE) in your web browser.
4. Allow Gears if you are using Google Chrome.

2. Select the “Free Time” on the screen and submit your mobile phone number.

**Welcome**

Please choose the service plan from the following profile table.

#	Service Name	Service Time	Charge	Unit
1	<input checked="" type="radio"/> Free Time	30 minutes	Free	1
2	<input type="radio"/> Billing_1_hour	1 hour	€ 1.00	1
3	<input type="radio"/> Billing_2_hour	2 hours	€ 2.00	1
4	<input type="radio"/> Billing_3_hour	3 hours	€ 3.00	1

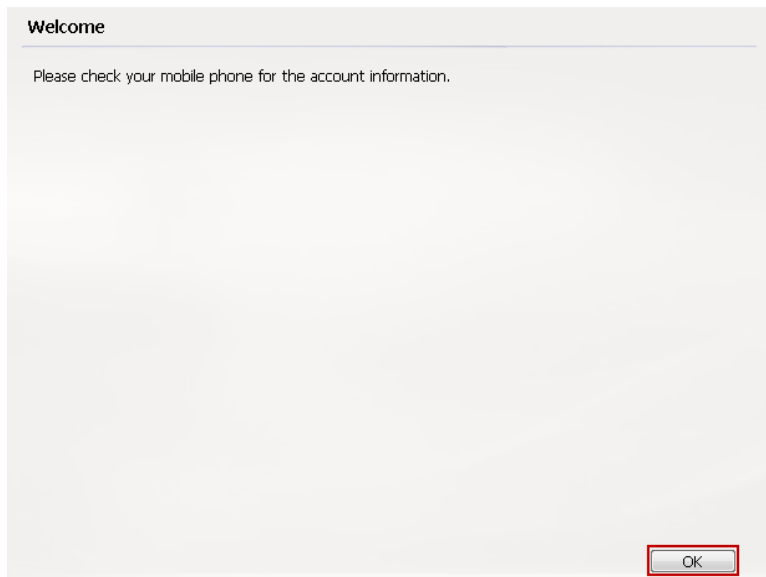
Country Code: 886

Mobile Number: 0912345678

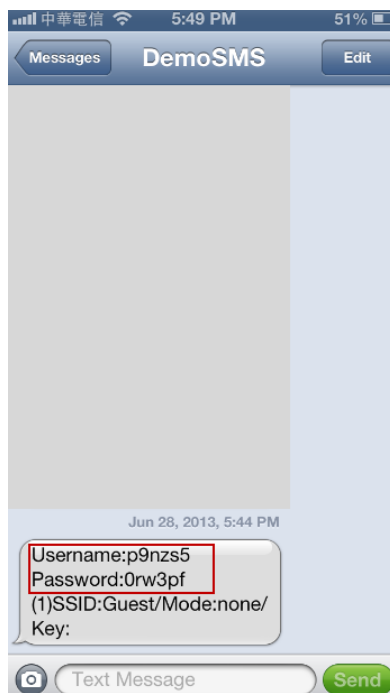
Example: (886)0910123456 (for Taiwan)

OK

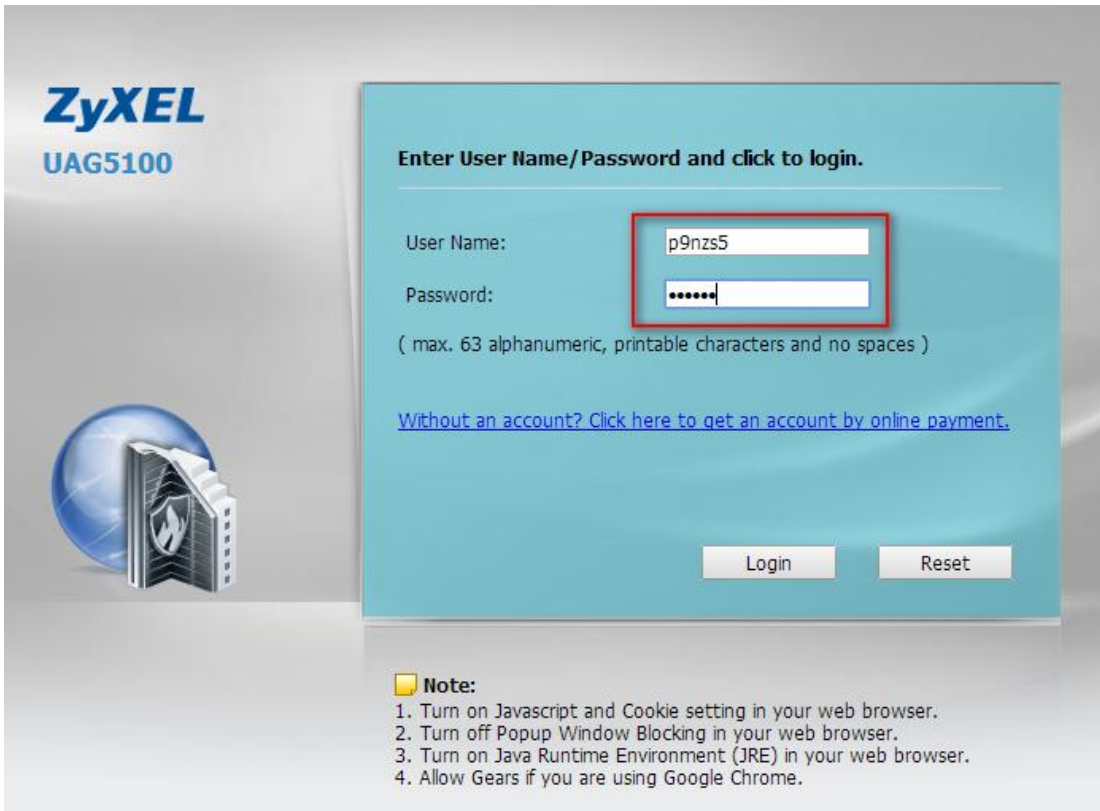
3. The account and password is sent to your mobile phone.



4. Check your account information.



5. Fill in the account information received on your mobile phone and click “Login”.



**ZyXEL**  
UAG5100

**Enter User Name/Password and click to login.**

User Name:

Password:

( max. 63 alphanumeric, printable characters and no spaces )

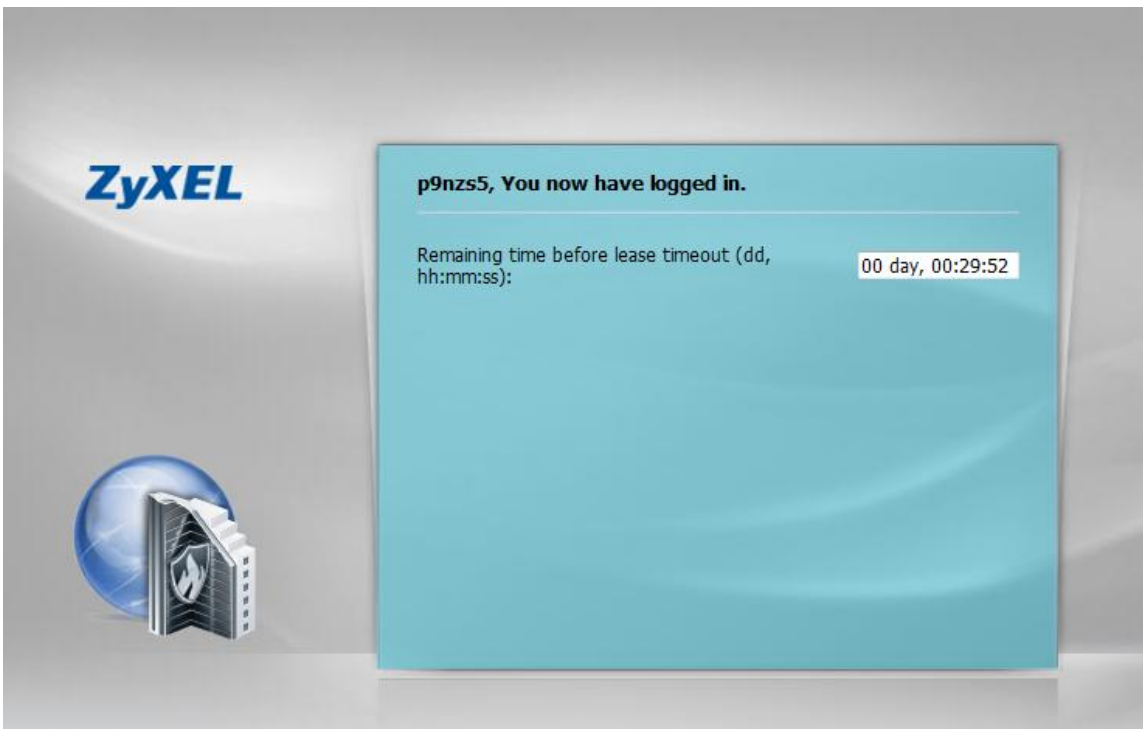
[Without an account? Click here to get an account by online payment.](#)

Login Reset

**Note:**

1. Turn on Javascript and Cookie setting in your web browser.
2. Turn off Popup Window Blocking in your web browser.
3. Turn on Java Runtime Environment (JRE) in your web browser.
4. Allow Gears if you are using Google Chrome.

6. You can start to access the Internet.



**ZyXEL**

**p9nzs5, You now have logged in.**

Remaining time before lease timeout (dd, hh:mm:ss): 00 day, 00:29:52

## Scenario 3 - Use BWM to control trial user and billing user

### 3.1 Application scenario

In the hotel network hotspot applications, UAG can support different bandwidth control by different SSID, we can use this design like NXC, SSID mapping to a VLAN. Then VLAN can mapping to an IP address subnet. In this scenario, we add 2 SSIDs and enable Free Time function on the device, and also add the Billing profiles on the device. After add the policy to limit the user bandwidth via BWM function, we can login to device via trial-user or billing-user to check the speed controlled by UAG.



### 3.2 Configuration Guide

#### Network conditions:

##### UAG:

WAN1: 10.59.3.54

LAN2: 172.17.0.1

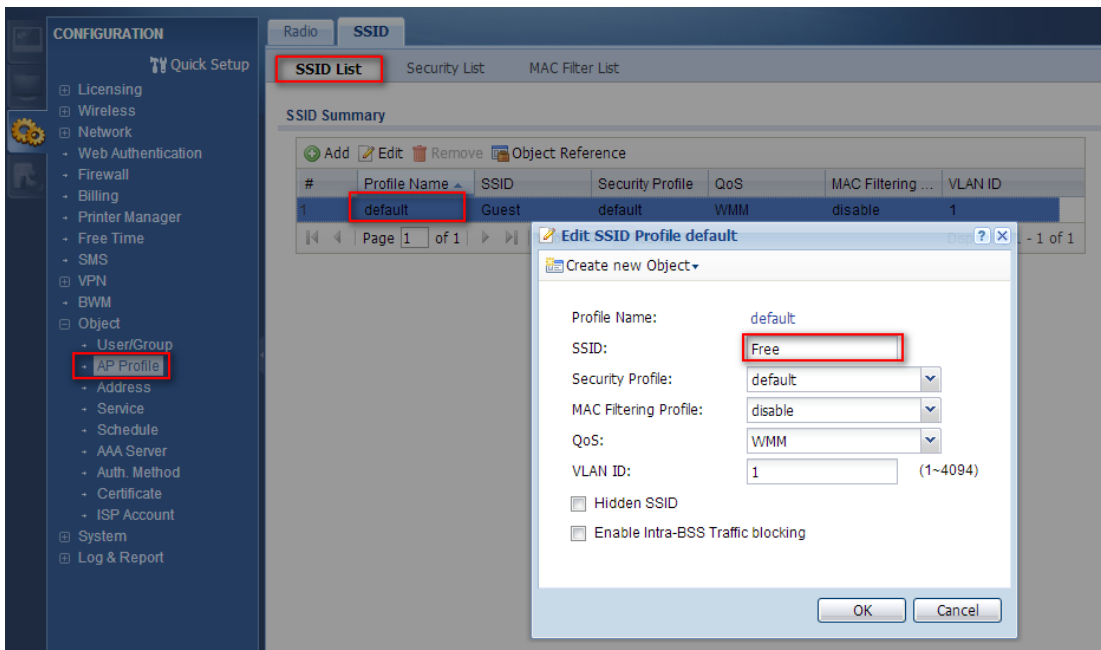
#### Goal to achieve:

UAG can support add the rules on the device to control different user type by BWM function for control the bandwidth with user account.

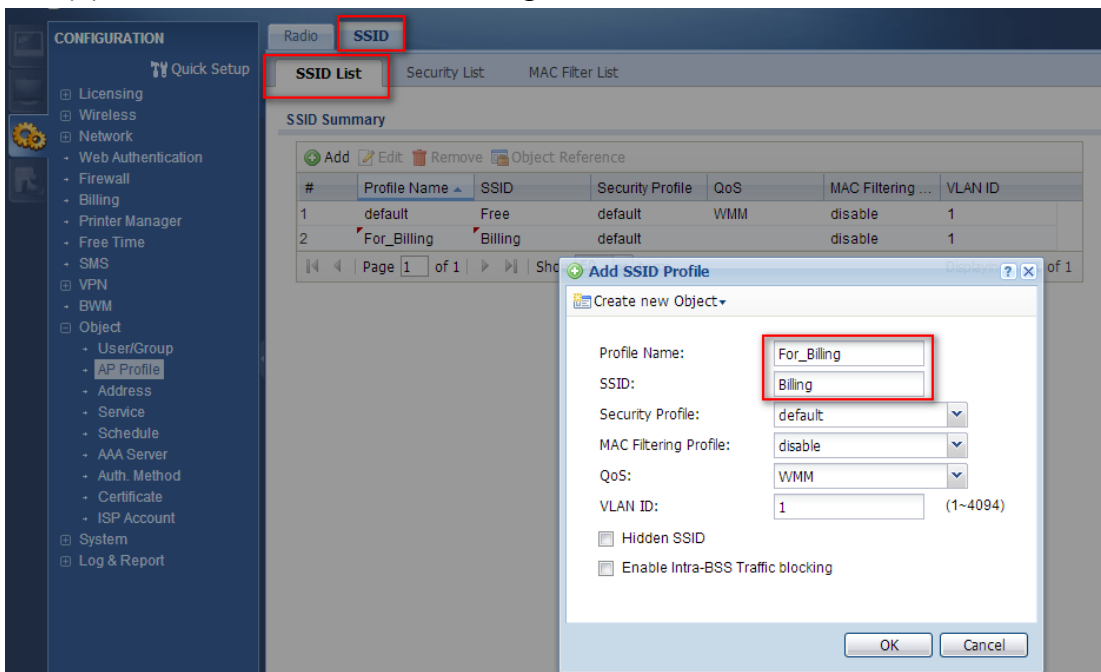
Task 1: Add the AP profiles on the device

Step 1: Go to **Configuration > Object > AP Profile > SSID > SSID list**

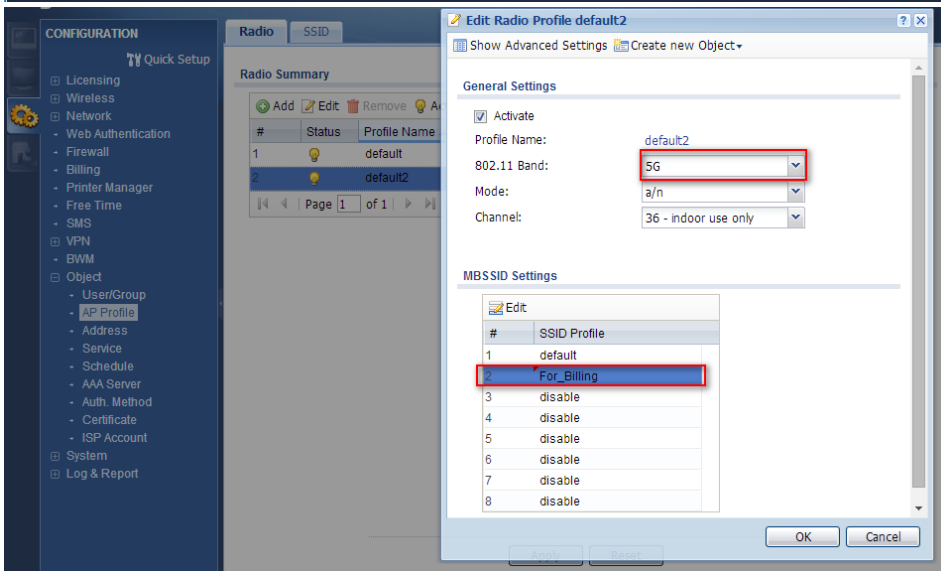
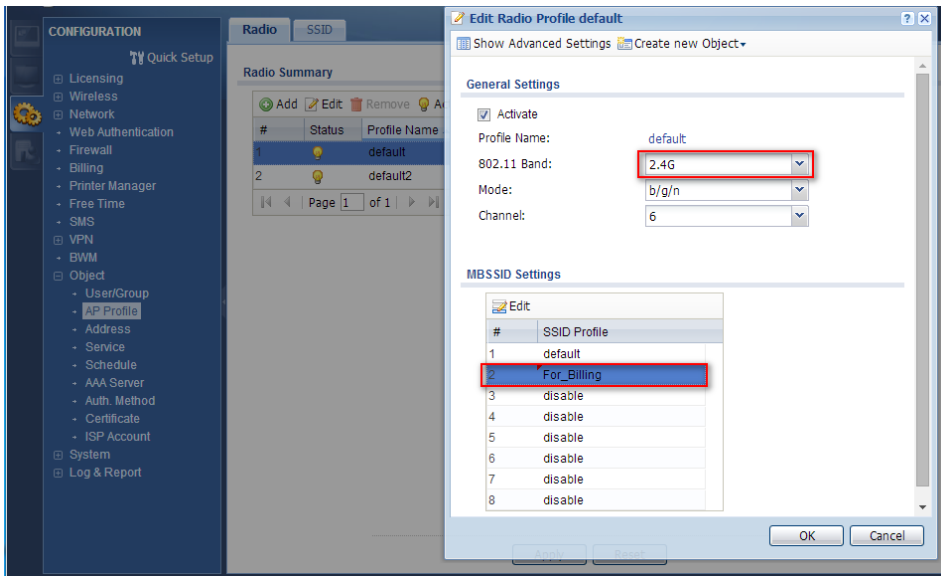
(1) Modify the default SSID name as “Free”.



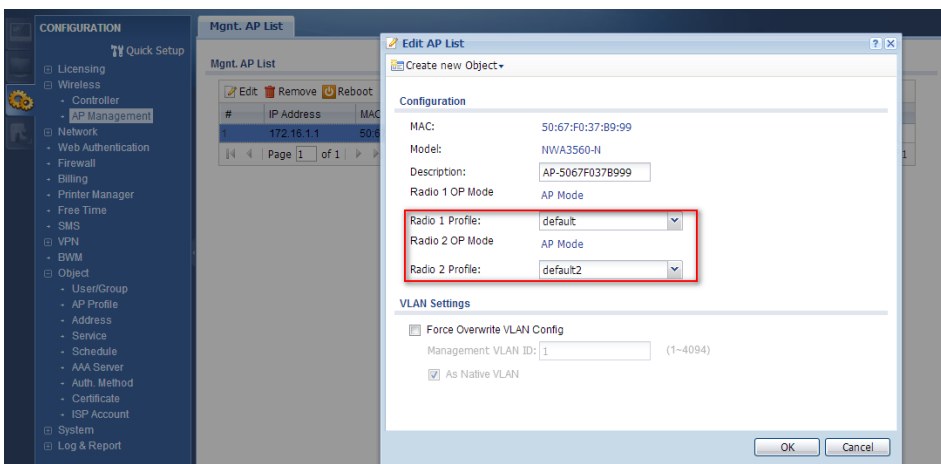
(2) Add the other SSID for Billing user



(3) Go to **Configuration > Object > AP Profile > Radio** to Broadcast these two SSIDs in 2.4 G and 5 G Radios.



(4) Go to Configuration > Wireless > AP Management to apply the AP profile to AP.



Task 2: Enable Free Time function on the device

Step 1: Go to **Configuration > Free time** page to enable the Free time function.  
(You can setup how long time and how many times that user can access for free.)

The screenshot shows the 'Free Time' configuration page. On the left is a navigation tree under 'CONFIGURATION' with options like Licensing, Wireless, Network, Firewall, Billing, Printer Manager, Free Time (highlighted), SMS, VPN, BWM, Object, System, and Log & Report. The main area is titled 'Free Time' and contains 'General Settings'. A checkbox 'Enable Free Time' is checked and highlighted with a red box. Below it are fields for 'Free Time Period' (30 minutes), 'Reset Time' (00:00), 'Maximum Registration Number Before Reset Time' (1), and 'Delivery Method' (SMS). A note at the bottom states: 'Note: If you want to configure ssid profile settings of the account, please go to [Billing](#).'

Task 3: Add the Billing profiles on the device

Step 1: Go to Configuration > Billing > Billing profile page to add the billing profile.

Ex: 1 hour = 1€, 2 hours = 2€, 3 hours= 3€

The screenshot shows the 'Billing Profile' dialog box. It has a 'Settings' tab. A checkbox 'Enable billing profile' is checked and highlighted with a red box. Below it are fields for 'Name' (Billing\_1\_hour), 'Unit' (1), 'Time Period Unit' (hour), and 'Price' (1). At the bottom are 'OK' and 'Cancel' buttons.

**CONFIGURATION**

Quick Setup

- Licensing
- Wireless
- Network
  - Web Authentication
  - Firewall
  - Billing
  - Printer Manager
  - Free Time
  - SMS
- VPN
- BWM
- Object
- System
- Log & Report

**Billing Profile** | Discount | Payment Service

**Account Generator Settings**

Button A: Billing\_1\_hour

Button B: Billing\_2\_hour

Button C: Billing\_3\_hour

Preview

**Billing Profile**

#	Status	Name	Time Period	Price
1	Lightbulb	Billing_1_hour	1 hour	€ 1,00
2	Lightbulb	Billing_2_hour	2 hour	€ 2,00
3	Lightbulb	Billing_3_hour	3 hour	€ 3,00

Page 1 of 1 | Show 50 items | Displaying 1 - 3 of 3

Apply Reset

## Step 2:

Go to **Configuration > Billing > General** page to check the general setting in billing function.

- (1) Make sure the accounting method type, currency, setting is correct
- (2) Add the SSID profile in the general setting

**CONFIGURATION**

Quick Setup

- Licensing
- Wireless
- Network
  - Web Authentication
  - Firewall
  - Billing
  - Printer Manager
  - Free Time
  - SMS
- VPN
- BWM
- Object
- System
- Log & Report

**General** | Billing Profile | Discount | Payment Service

**General Settings**

Unused account will be deleted after the time: 24 hour

Accounting Method

☐ Time to Finish

☒ Accumulation

User idle timeout: 3 (1-60 minutes)

Accumulation account will be deleted after the time: 90 day

**Billing User Logon Settings**

Maximum number per billing account: 1 (1-10)

Reach maximum number per billing account: ☐ Block ☒ Kick previous user and login

**Currency**

Currency 1

☒ Currency symbol: €

☐ Currency code: User-Define

Number of decimals places: 2

Decimal symbol: comma

Tax: 0 %

**SSID Profile Settings**

Selectable SSID Profiles

Selected SSID Profiles

default

For\_Billing

Apply Reset

## Task 4: Configuring the Payment service page

Make sure the Payment service already configured correct.

**CONFIGURATION**

General Billing Profile Discount **Payment Service**

**General** Custom Service

**General Setting**

☒ Enable Payment Service

**Payment Provider Selection**

Account: seller-aaa@gmail.com

Currency: Euro(EUR)

Identity Token: jnoqJPWvM9JWMEpIGCFZ0EO1cHEwQd2McU5Se38e

Payment Gateway: www.sandbox.paypal.com/

**Account Delivery Method**

Delivery Method: On-Screen

Apply Reset

Task 5: Add the policy to limit the user bandwidth via BWM function

Step 1: Go to Configuration > BWM > Add the policy to limit the Bandwidth by user type.

(1) User: Trail-Users, Inbound=1000Kbps, Out bound=1000Kbps, Priority =7

**CONFIGURATION**

BWM Global Settings

☒ Enable BWM

**Add Policy**

Create new Object

User: trial-users

Schedule: none

Incoming Interface: any

Outgoing Interface: any

Source: any

Destination: any

DSCP Code: any

Service Object: any

**DSCP Marking**

DSCP Marking

Inbound Marking: preserve

Outbound Marking: preserve

**Bandwidth Shaping**

Guaranteed Bandwidth

Inbound: 1000 kbps (0 : disabled) Priority: 7

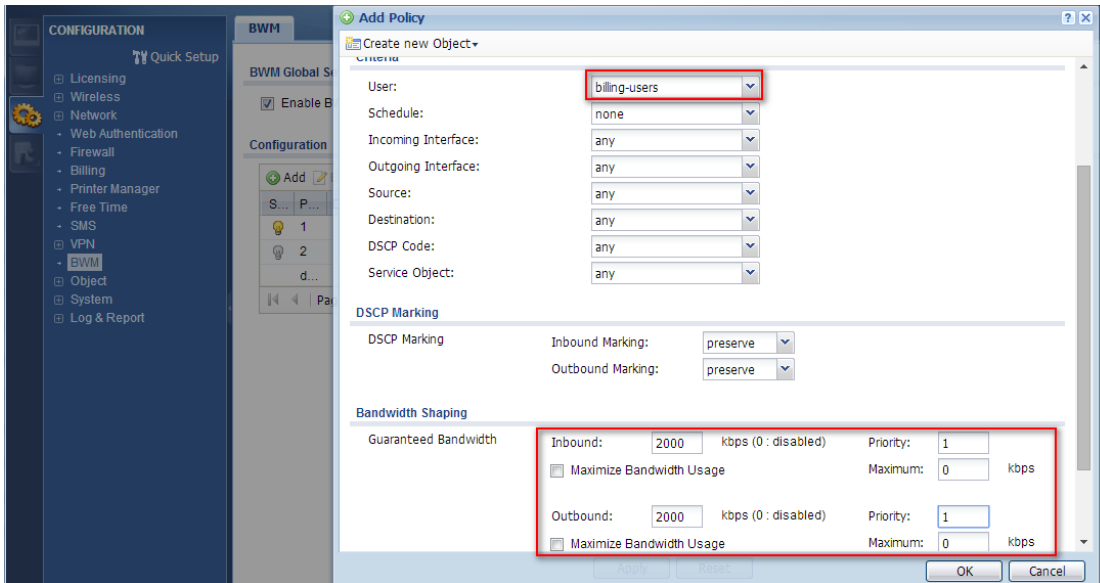
☐ Maximize Bandwidth Usage Maximum: 0 kbps

Outbound: 1000 kbps (0 : disabled) Priority: 7

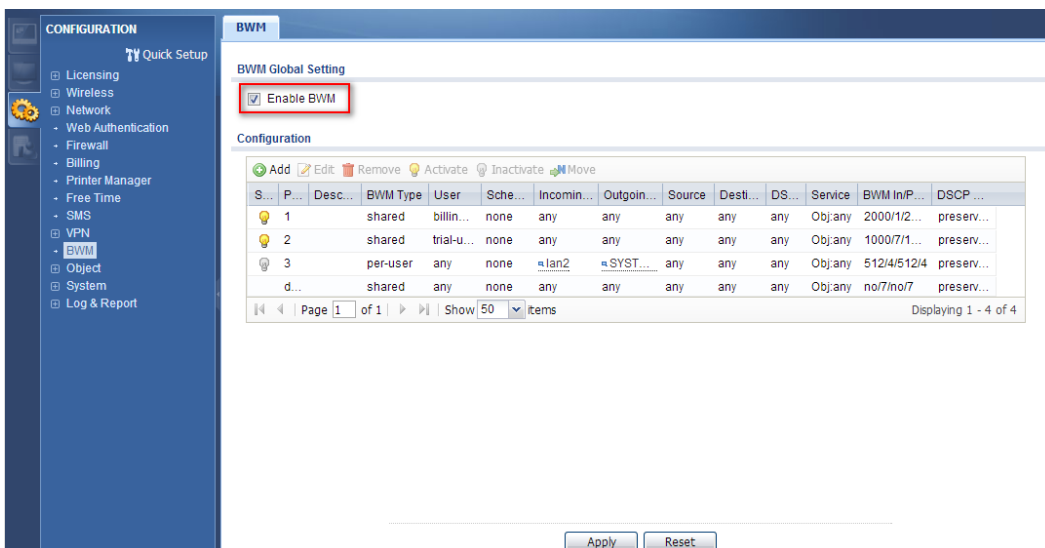
☐ Maximize Bandwidth Usage Maximum: 0 kbps

Apply Reset OK Cancel

(2) Billing-Users, Inbound=2000Kbps, Out bound=2000Kbps, Priority =1



### (3) Enable BWM function.



Task 6: Enable the Web authentication policy on the device

Go to Configuration > Web Authentication > Web Authentication > Web Portal.

Enable Web authentication policy to force LAN2 user must authentication with device.

**CONFIGURATION**

Quick Setup

- Licensing
- Wireless
- Network
  - Web Authentication
  - Firewall
  - Billing
  - Printer Manager
  - Free Time
  - SMS
  - VPN
  - BWM
  - Object
  - System
  - Log & Report
- Object
- System
- Log & Report

**Web Authentication** | Walled Garden | Advertisement

**Web Authentication Type**

Type: ☐ None ☒ Web Portal ☐ User Agreement

**General Settings**

Logout IP:

☐ Enable Terms of Service

☒ Internal Web Portal

Welcome URL:  (Optional)

Preview:

File Name:

File Path:

Restore File to Default:

[Download](#) the internal web portal terms of service example.

☒ External Web Portal

Login URL:

Logout URL:  (Optional)

Welcome URL:  (Optional)

Session URL:  (Optional)

Error URL:  (Optional)

[Download](#) the external web portal example.

**Exceptional Services**

#	Exceptional Services
1	DNS

Page 1 of 1 | Show 50 items | Displaying 1 - 1 of 1

**Web Authentication Policy Summary**

Status	Priority	Incoming Interface	Source	Destination	Schedule	Authentication	Description
1	any	any	any	any	none	force	
Default	any	any	any	any	none	unnecessary	n/a

Page 1 of 1 | Show 50 items | Displaying 1 - 2 of 2

Task 7: Login to device via trial user

Step 1: Click the link to get a dynamic user account.

**ZyXEL**  
UAG5100

**Enter User Name/Password and click to login.**

User Name:

Password:

( max. 63 alphanumeric, printable characters and no spaces )

[Without an account? Click here to get an account by online payment.](#)

**Note:**

1. Turn on Javascript and Cookie setting in your web browser.
2. Turn off Popup Window Blocking in your web browser.
3. Turn on Java Runtime Environment (JRE) in your web browser.
4. Allow Gears if you are using Google Chrome.

Step 2: After click the link on the login page, the device will redirect the billing profile to you.

Then you can select the “Free Time” on the screen, and click “OK” Button.

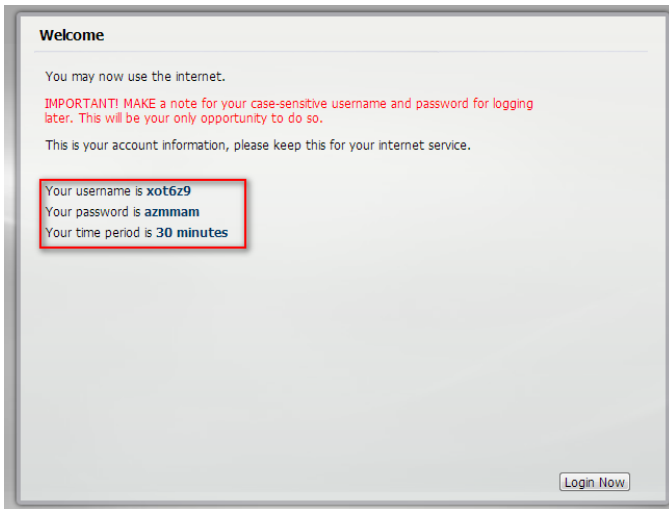
**Welcome**  
Please choose the service plan from the following profile table.

#		Service Name	Service Time	Charge	Unit
1	<input checked="" type="radio"/>	Free Time	30 minutes	Free	1
2	<input type="radio"/>	Billing_1_hour	1 hour	€ 1.00	1
3	<input type="radio"/>	Billing_2_hour	2 hours	€ 2.00	1
4	<input type="radio"/>	Billing_3_hour	3 hours	€ 3.00	1

OK

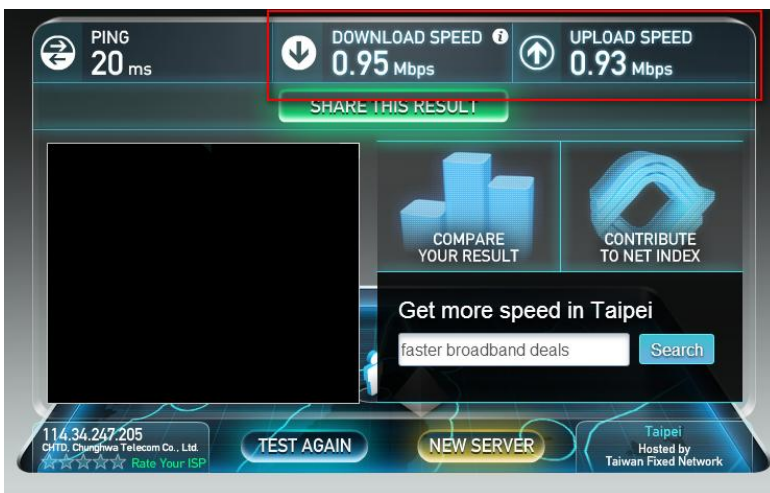
Step 3: Then device will pop out the user name and password to you.

Or you can click “Login Now” Button to login to device directly.



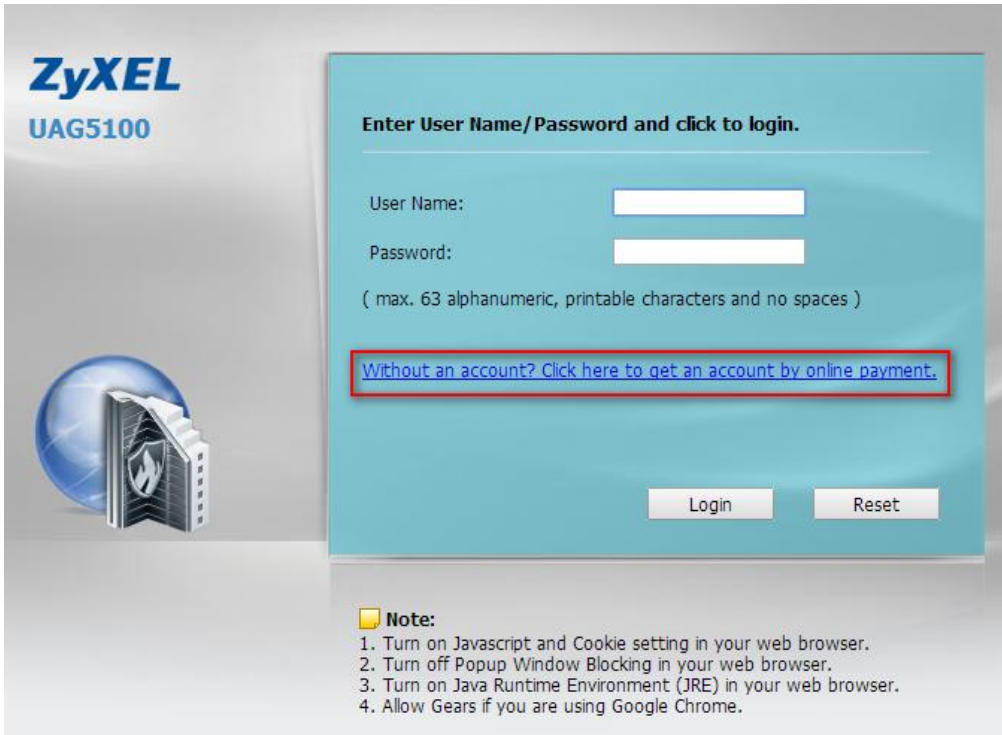
Step 4: Use browser to “<http://www.speedtest.net/>” to test the Speed.

The test result is around 1 Mbps. It’s the same as our setup.



**Task 7: Login to device via billing-user, and test the speed.**

Step 1: Click the link to get a dynamic account to access the internet.



**ZyXEL**  
UAG5100

Enter User Name/Password and click to login.

User Name:

Password:

( max. 63 alphanumeric, printable characters and no spaces )

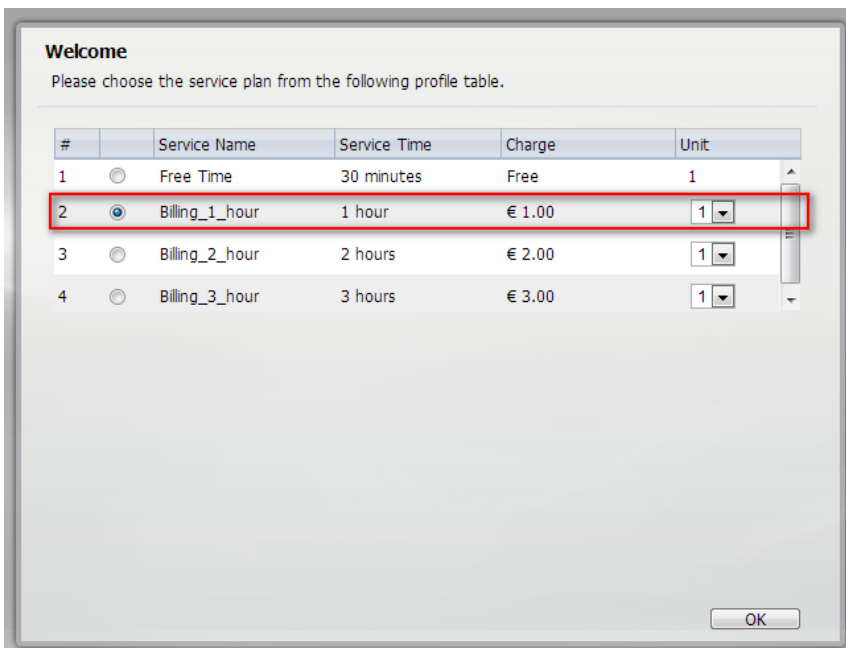
[Without an account? Click here to get an account by online payment.](#)

Login Reset

**Note:**

1. Turn on Javascript and Cookie setting in your web browser.
2. Turn off Popup Window Blocking in your web browser.
3. Turn on Java Runtime Environment (JRE) in your web browser.
4. Allow Gears if you are using Google Chrome.

Step 2: Select 1 hour profile to test this.



**Welcome**

Please choose the service plan from the following profile table.

#		Service Name	Service Time	Charge	Unit
1	<input type="radio"/>	Free Time	30 minutes	Free	1
2	<input checked="" type="radio"/>	Billing_1_hour	1 hour	€ 1.00	1
3	<input type="radio"/>	Billing_2_hour	2 hours	€ 2.00	1
4	<input type="radio"/>	Billing_3_hour	3 hours	€ 3.00	1

OK

Step 3: Then device will pop out the PayPal page to you.

Please enter the correct user name and password in the check box. And click “Log in” button on the browser.

### HongSong Chen's Test Store

**Your order summary**

Descriptions	Amount
60 minutes	€1.00
Item price: €1.00	
Quantity: 1	
<b>Item total</b>	<b>€1.00</b>
<b>Total</b>	<b>€1.00 EUR</b>

**Choose a way to pay**

**Pay with my PayPal account**

Log in to your account to complete the purchase

Email  
buyer-a@gmail.com

PayPal password  
\*\*\*\*\*

**Log In**

[Forgot your email address or password?](#)

**Don't have a PayPal account?**

(Optional) Join PayPal for faster future checkout

[Cancel and return to HongSong Chen's Test Store.](#)

And PayPal will help you balance your bill. Then you can click “Pay Now” button.

**Your order summary**

Descriptions	Amount
60 minutes	€1.00
Item price: €1.00	
Quantity: 1	
<b>Item total</b>	<b>€1.00</b>
<b>Total</b>	<b>€1.00 EUR</b>

**Review your information**

**Pay Now**

**Shipping address** [Change](#)

HongSong Chen  
1 Main St  
San Jose, CA 95131  
United States

Note to seller: [Add](#)

**Payment methods** [Change](#)

PayPal Balance \$1.40 USD

PayPal Conversion Rate as of Jun 24, 2013: 1 U.S. Dollar = 0.714485 Euros

PayPal gift card, certificate, reward, or other discount [Redeem](#)

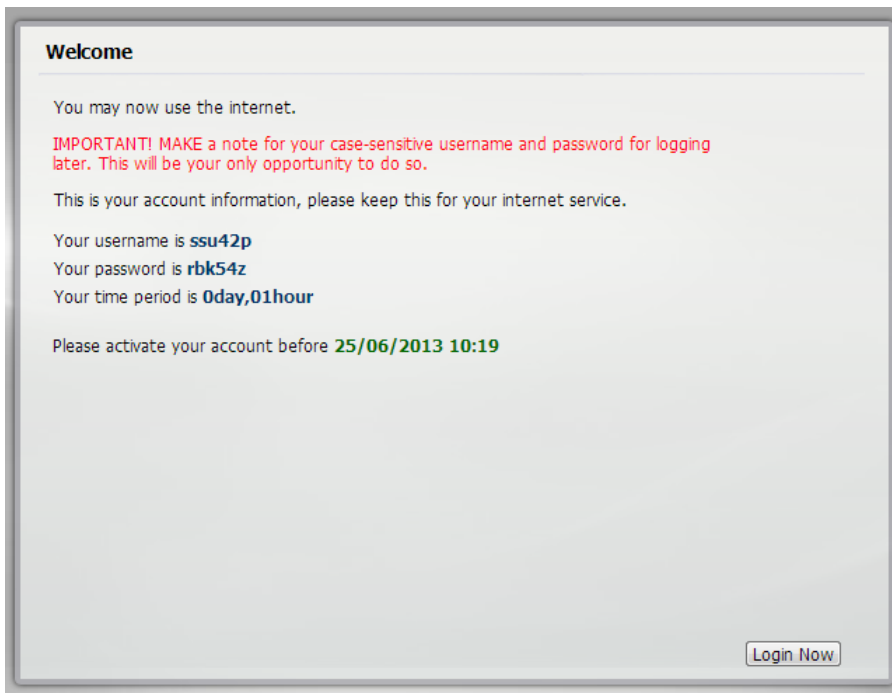
View [PayPal policies](#) and your payment method rights.

**Contact information**  
buyer-a@gmail.com

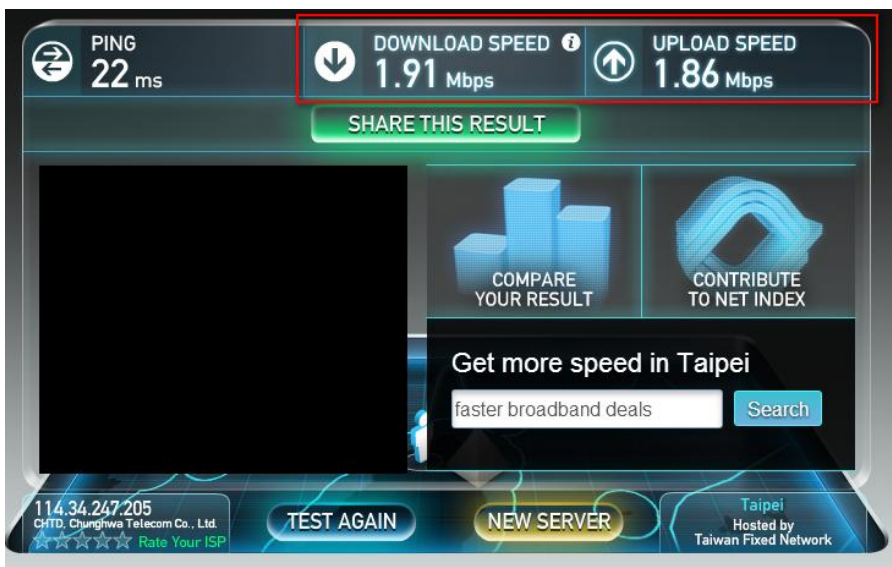
**Pay Now**

[Cancel and return to HongSong Chen's Test Store.](#)

Step 4: After you click Pay Now button, the PayPal will redirected the user name and password to you. And you can click “Login now” to access the internet directly.



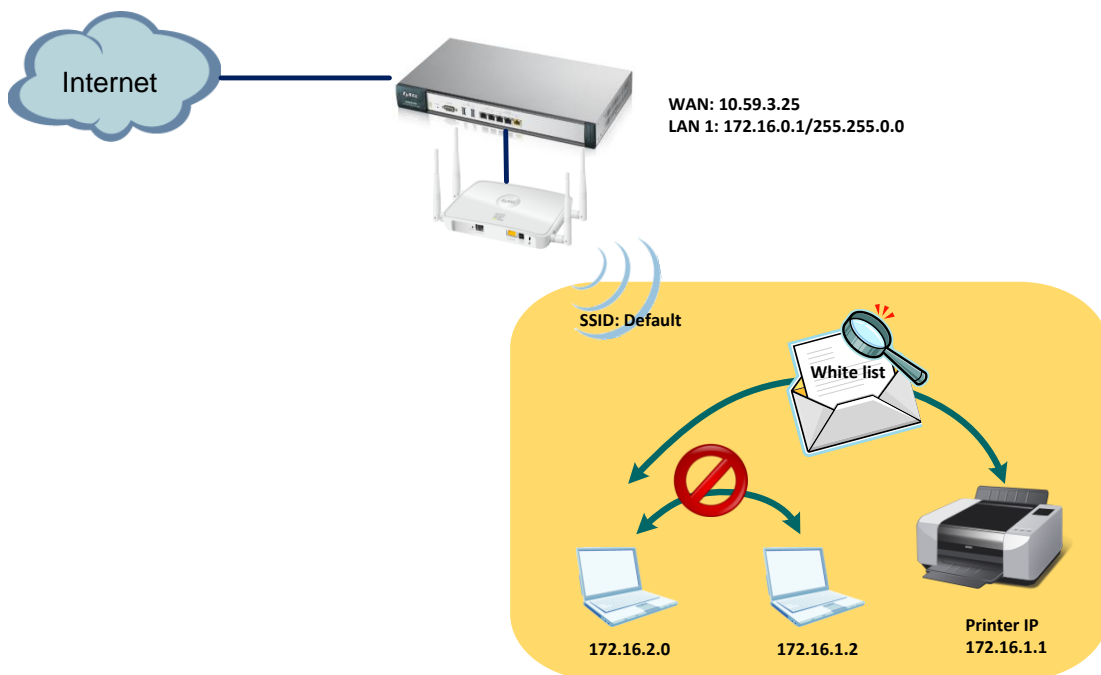
Step 5: Use browser to “<http://www.speedtest.net/>” to test the Speed. The test result is around 2 Mbps. It’s the same as our setup.



## Scenario 4 - Using Function of Layer 2 Isolation and White List

### 4.1 Application scenario

In the hotel network hotspot applications, if you want to easily control and manage that Clients will be unable to connect to each other, you can enable the Layer2 Isolation function to block which interface unable to connect to each other. In this scenario, we have set two Client laptops, and an online printer for Client use, after enable the Layer2 Isolation, we can control that Clients side can't access each other laptop. And by using White list, we also can manage Client side also can access online printer.



### 4.2 Configuration Guide

#### Network conditions:

##### UAG:

LAN 1: 172.16.0.1/255.255.0.0

Printer IP: 172.16.1.1

Client 1's laptop: 172.16.1.2

Client 2's laptop: 172.16.2.0

#### Goals to achieve:

- 1) With enable the Layer2 Isolation function, it can easily control and manage to block which interface unable to connect to each other.
- 2) Using White list, it can manage which server that Client side also can access.

**USG configuration:**

Task 1. Using enable “Layer2 Isolation” function to manage internal unable to connect to each other.

Step1: Connect Printer on UAG Lan1, and make sure the Client’s laptop is also in the same Lan1 subnet.

Printer IP:

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\CS0>ipconfig

Windows IP Configuration

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::f592:dab7:7a6b:3b08%11
    IPv4 Address. . . . . : 172.16.1.1
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 172.16.0.1

Tunnel adapter isatap.{8E4806B7-8351-4AFA-8557-1DA78CBA8D2E}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2001:0:9d38:6ab8:2c16:3f96:8ddd:832
    Link-local IPv6 Address . . . . . : fe80::2c16:3f96:8ddd:832%20
    Default Gateway . . . . . : 

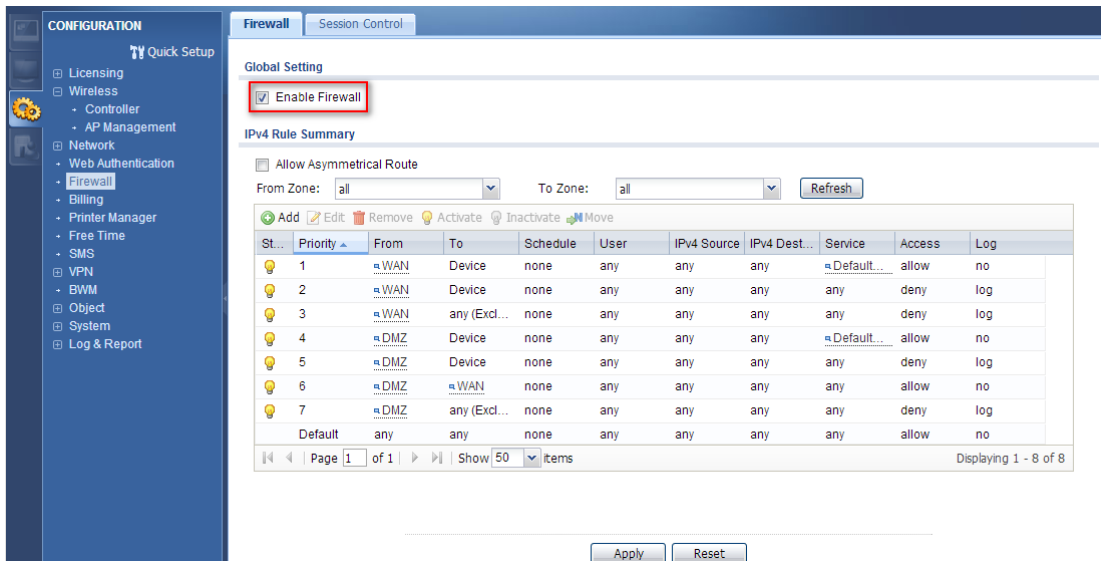
C:\Users\CS0>
```

Client2's laptop IP:

```
Connection-specific DNS Suffix  . : 
IP Address. . . . . : 172.16.2.0
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 172.16.0.1
```

Step2: Since the Layer2 Isolation function only takes effect if the firewall is enabled, so you have to enable firewall first.

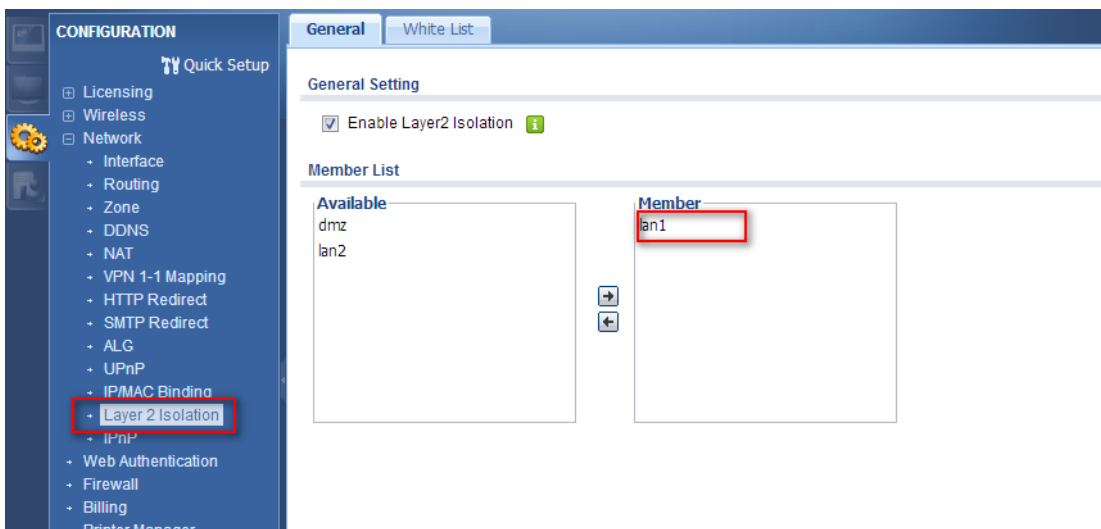
### Configuration > Network > Firewall > Enable Firewall



### Step3. Configuration > Network > Layer 2 Isolation

(1) Enable Layer 2 Isolation

(2) Move the lan1 interface to the Member list to let all lan1 internal unable to connect to each other.



**Verification:**

Client2's laptop can't connect to online printer (172.16.1.1), and Client1's laptop (172.16.1.2).

```
C:\Documents and Settings\user>ping 172.16.1.1

Pinging 172.16.1.1 with 32 bytes of data:

Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.

Ping statistics for 172.16.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\user>ping 172.16.1.2

Pinging 172.16.1.2 with 32 bytes of data:

Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.

Ping statistics for 172.16.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

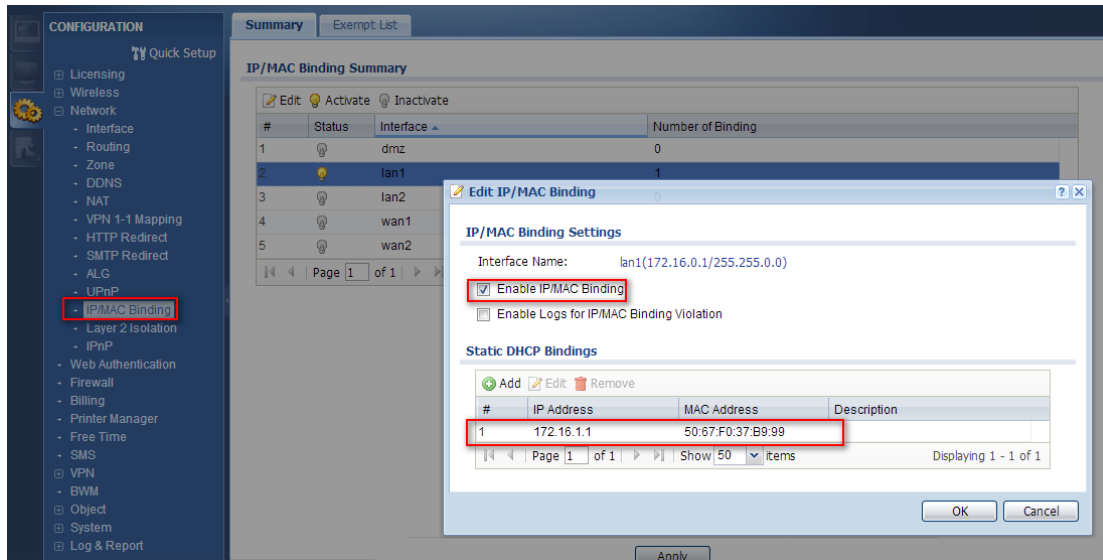
Task 2. Using “White list” function to manage Client side also can access online printer.

Step1. Using IP/MAC Binding to make sure the Printer IP is correct host.

### Configuration > Network > IP/MAC Binding > lan1

(1) Enable IP/MAC Binding

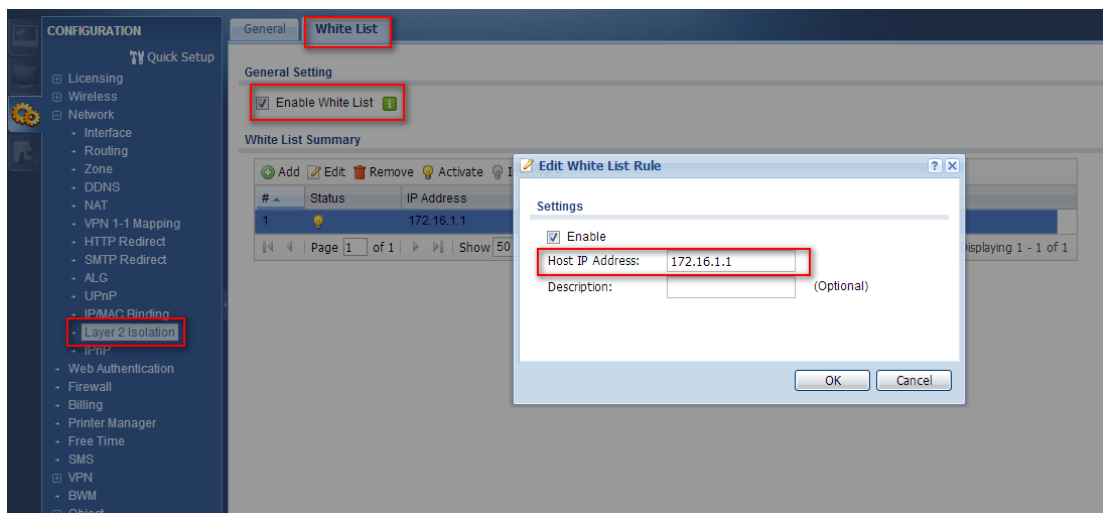
(2) Insert the Printer IP binding with the correct MAC Address



### Step2. Configuration > Network > Layer2 Isolation > White List

(1) Enable White List

(2) Add the White List Rule with Host IP Address: 172.16.1.1 to let Client's laptop can connect to the Printer



Verification:

Client2's laptop can connect to online Printer (172.16.1.1) which in White List, but still can't connect to Client1's laptop (172.16.1.2).

```
C:\Documents and Settings\user>ping 172.16.1.1

Pinging 172.16.1.1 with 32 bytes of data:

Reply from 172.16.1.1: bytes=32 time=5ms TTL=127
Reply from 172.16.1.1: bytes=32 time=7ms TTL=127
Reply from 172.16.1.1: bytes=32 time=8ms TTL=127
Reply from 172.16.1.1: bytes=32 time=11ms TTL=127

Ping statistics for 172.16.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 5ms, Maximum = 11ms, Average = 7ms

C:\Documents and Settings\user>ping 172.16.1.2

Pinging 172.16.1.2 with 32 bytes of data:

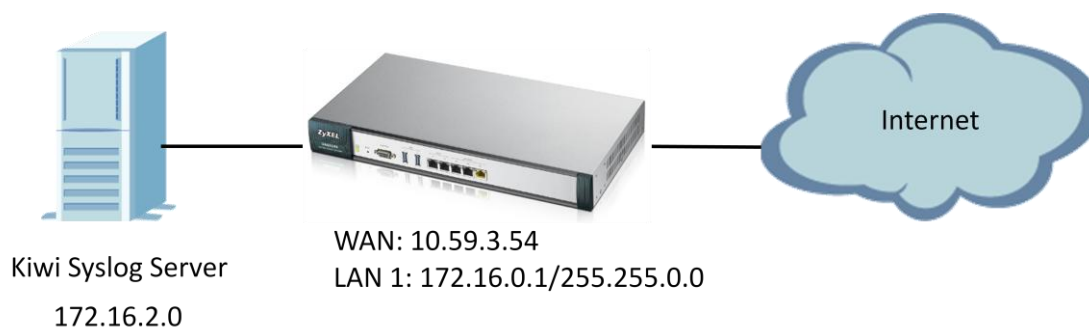
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.
Reply from 172.16.0.1: Destination host unreachable.

Ping statistics for 172.16.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

## Scenario 5 – Sending the system log to a remote syslog server and the USB device

### 5.1 Application Scenario

For the management purposes, administrators can easily monitor events occurring on UAG by reading syslog. The syslog is very useful for administrators; especially, when the administrator receives complaints from the users regarding slow or unstable Internet connection. The administrator can use these reports as a troubleshooting reference. In this scenario, we are showing how the UAG exports system logs to a Kiwi syslog server and a USB device connected to UAG.



### 5.2 Configuration Guide

#### Network conditions:

WAN: 10.59.3.54

Kiwi Syslog Server: 172.16.2.0

#### Goals to achieve:

The administrator will be able to see system logs on the Kiwi syslog server and a USB storage.

#### USG configuration:

Task 1. Install Kiwi syslog server on the PC and send log information to Kiwi syslog server.


Step 1: Install Kiwi syslog server on the PC and connect this PC to LAN of UAG.

Here is the website for Kiwi syslog server.

<http://www.kiwisyslog.com/products/kiwi-syslog-server/product-overview.aspx>

SOLARWINDS
KIWI

Contact Us Now: 1 800 090 386 or [KiwiSales@SolarWinds.com](mailto:KiwiSales@SolarWinds.com)



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[Other IT Products](#)



Home > Products > Kiwi Syslog Server > Product Overview

## Kiwi Syslog Server for Windows

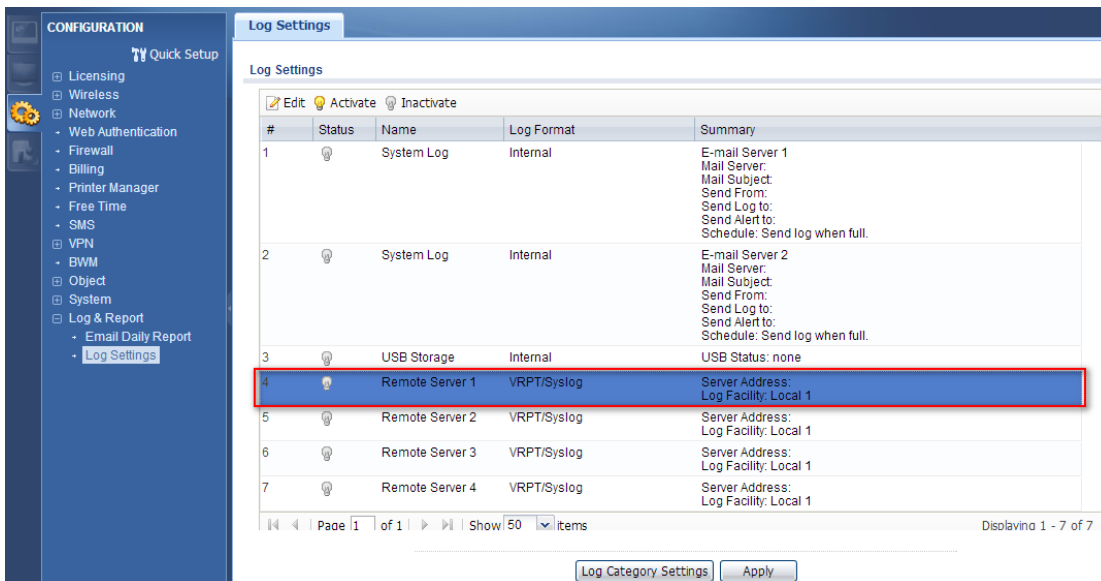
**Managing Syslog, SNMP Traps, and Windows Event Log Messages Has Never Been Easier.**

Kiwi Syslog Server is one of the most trusted and affordable syslog servers on the market. Easy to set up and configure, it offers a feature-rich solution for receiving, logging, displaying, alerting, and forwarding syslog, SNMP trap, and Windows event log messages from devices such as routers, switches, Linux and Unix hosts, Windows servers, and more.

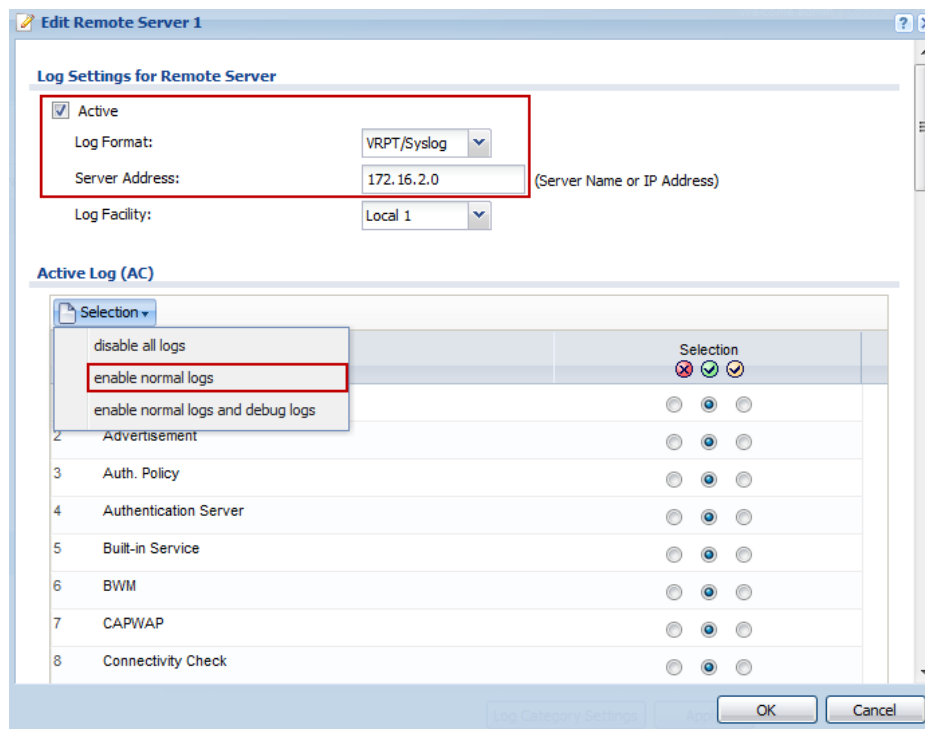
**Only \$295.00**

 [BUY NOW](#)
 [FREE TRIAL](#)

Step 2: **Configuration > Log & Report > Log Settings** and click on “Remote Server 1” to edit log on Kiwi syslog server.

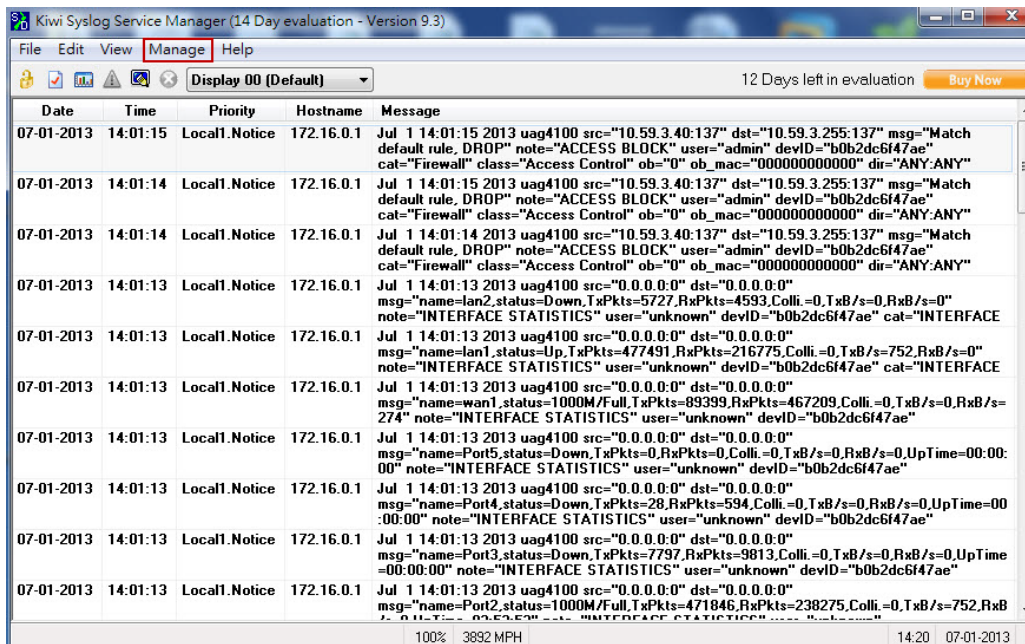


Step 3: Type the server name or the IP address of the Kiwi syslog server and check “Active” to send log information to the server. Select what information you want to log from each log category. You can simply enable normal logs to send all normal logs to Kiwi syslog server.



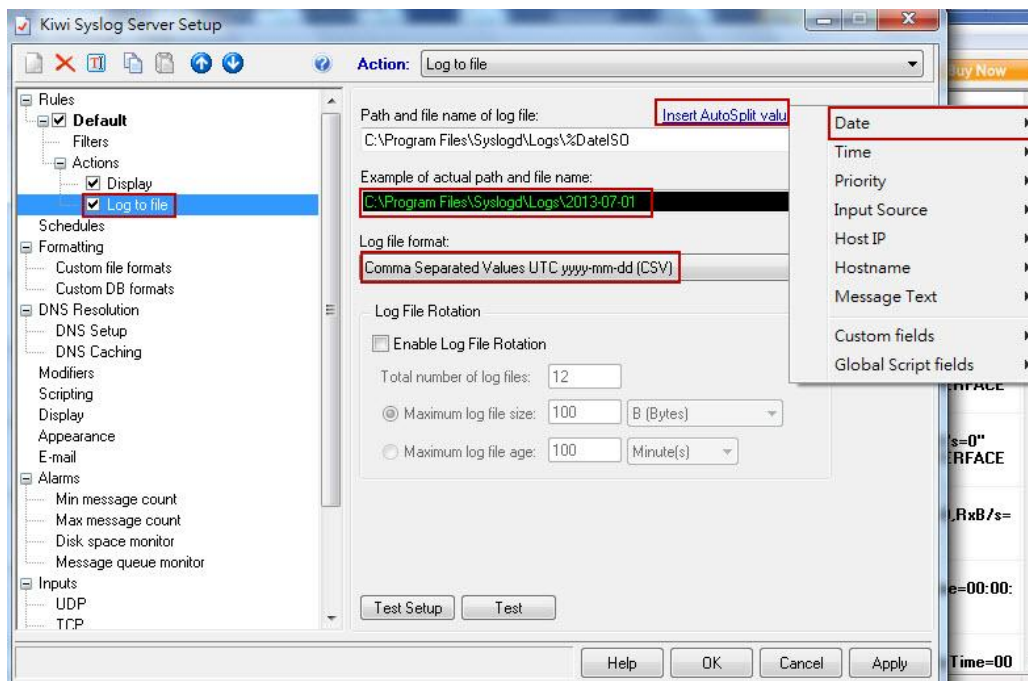
**Verification:**

1. Open Kiwi syslog server console and click Manage > Start the Sysogd service to start syslog service.

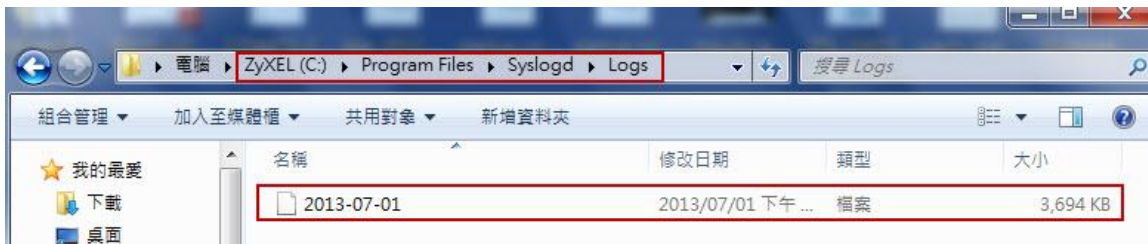


2. Go to File > Setup and click to “Log to file” to edit the path and file name of log file.

In this example, we select “ISO Date (YYYY-MM-DD)” as the log file name. Select the log file format in the list.

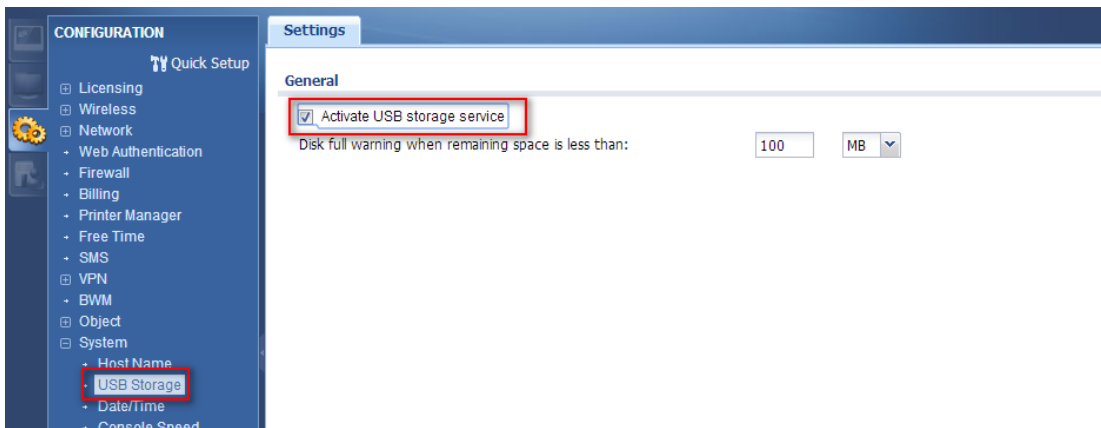


3. Go to the path where you save the log file and view the log.

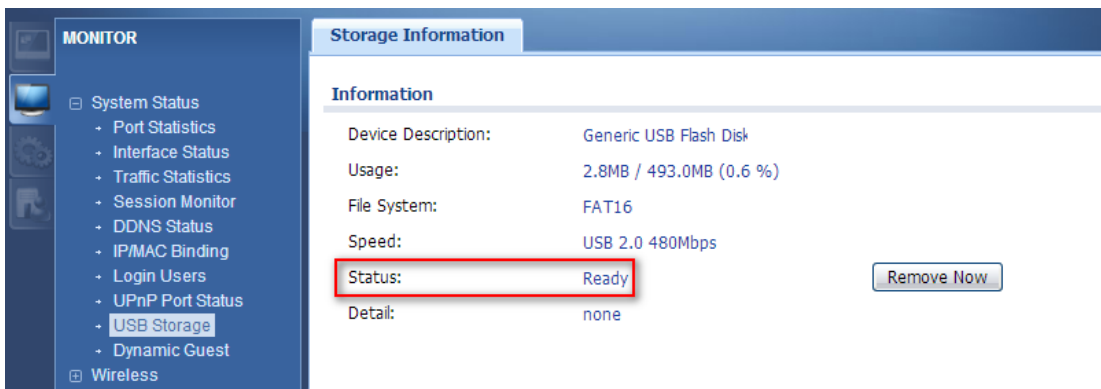


Task 2. Store the system log to the USB device.

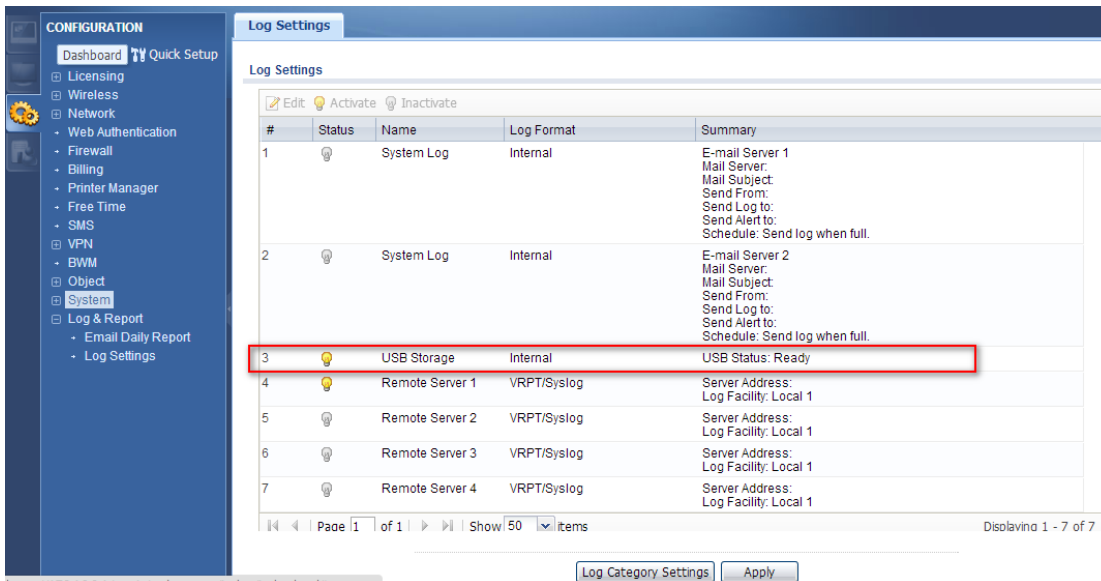
Step 1: Plug in an external USB storage device and activate USB storage service to store system log. USB storage devices with FAT16, FAT32, EXT2, or EXT3 file systems are supported for connection to the USB port of UAG. Also, you have to set a disk full warning limit once the storage space is less than this criterion.



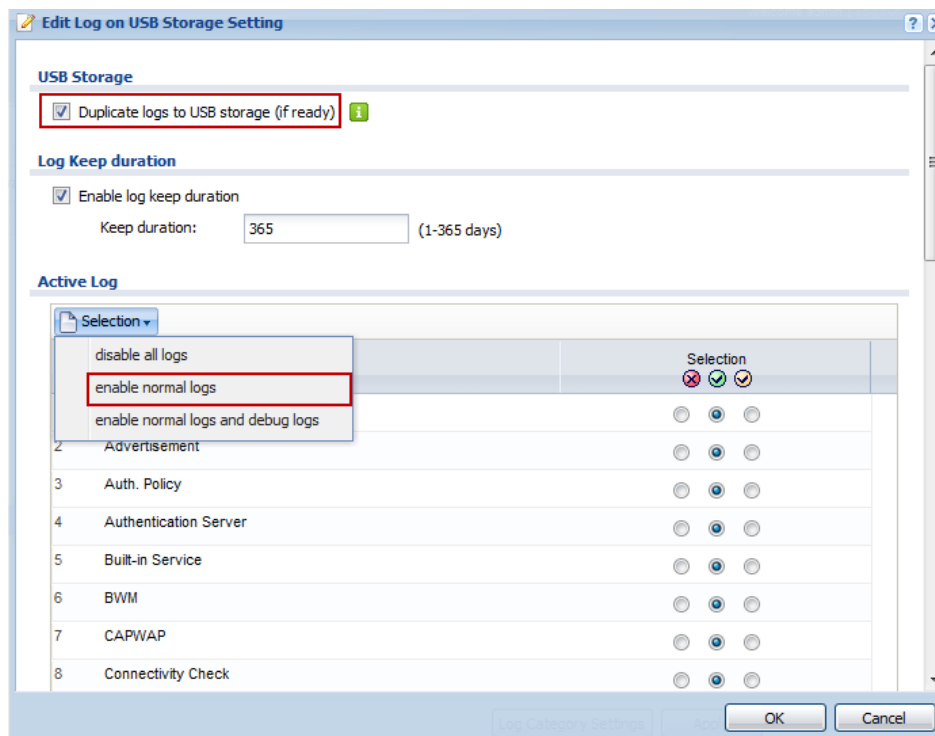
Step 2: Check if the status of USB storage is ready at **Monitor > USB Storage > Storage Information**.



Step 3: **Configuration > Log & Report > Log Settings** and click on “USB storage” to edit log on USB storage setting.



Step 4: Check “Duplicate logs to USB storage” and select what information you want to log from each log category. You can simply enable normal logs to save all normal logs to USB device.



**Verification:**

Go to **Maintenance > Diagnostics > System Log** and click “Download” to view the log.

MAINTENANCE

- File Manager
- Diagnostics
- Packet Flow Explore
- Reboot
- Shutdown

Diagnostics Packet Capture Core Dump System Log

System Log Archives in USB Storage

Remove Download

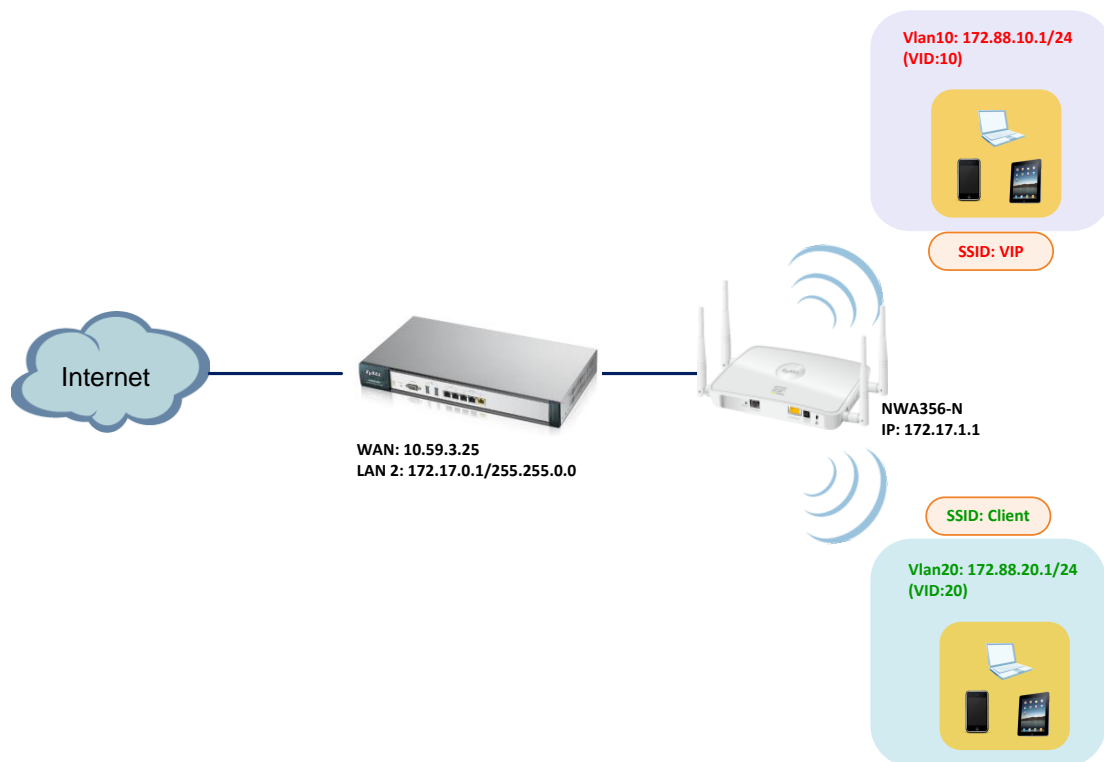
#	File Name	Size	Last Modified
1	2014-04-10.log	494	2014-04-10 11:05:34
2	2014-04-10_traffic.log	0	2014-04-10 11:05:34

Page 1 of 1 Show 50 items Displaying 1 - 2 of 2

## Scenario 6 – Manage multiple APs by AP profile

### 6.1 Application scenario

In the company, since there are several conference room might in different VLAN, and also far distance from each other, thus you can use AP profile to manage and control other APs in different VLAN. In this scenario, we use UAG to control and manage the AP of NWA3560N which connect to LAN2, and set up two SSID in different VLAN. By using function of AP profile, we can control and manage the AP to provide access Internet in different VLAN.



### 6.2 Configuration Guide

#### Network conditions:

##### UAG:

WAN: 10.59.3.25

LAN2: 172.17.0.1/255.255.0.0

NWA3560-N IP: 172.17.1.1

Vlan10 IP: 172.88.10.1/24

Vlan20 IP: 172.88.20.1/24

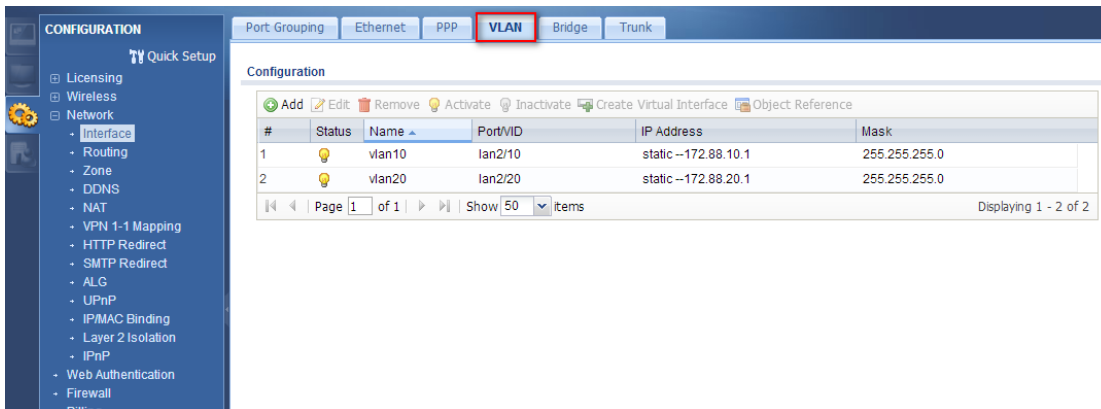
#### Goals to achieve:

- 1) Control multiple APs by AP profile
- 2) Manage the AP to provide access Internet in different VLAN

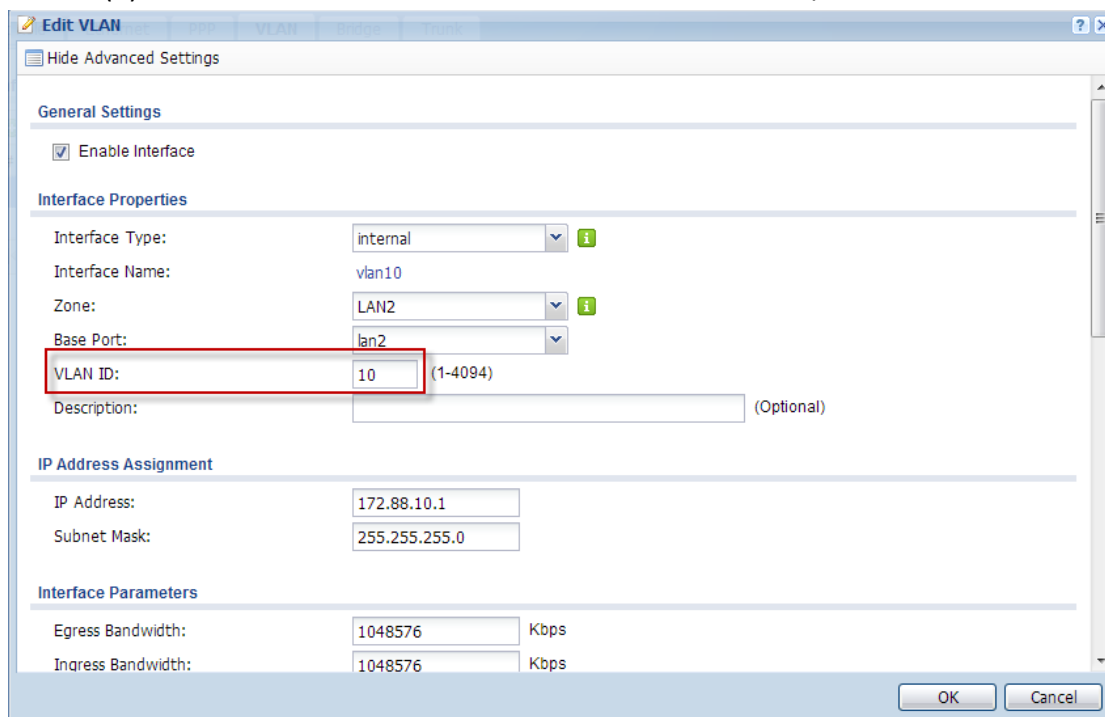
### USG configuration:

Task 1. Configure VLAN interface to let two SSID can belong to different VLAN first.

#### Step 1: Configuration > Network > Interface > VLAN



- (1) Add internal VLAN base on lan2 port, and set VLAN ID: 10
- (2) Set the VLAN interface IP Address with 172.88.10.1/24



## (3) Set DHCP Server with IP Pool Start Address from 172.88.10.2

**Edit VLAN** [?] [X]

Hide Advanced Settings

**DHCP Setting**

DHCP: DHCP Server

IP Pool Start Address (Optional): 172.88.10.2 Pool Size: 200

First DNS Server (Optional): Device

Second DNS Server (Optional): Custom Defined

Third DNS Server (Optional): Custom Defined

First WINS Server (Optional):

Second WINS Server (Optional):

Default Router (Optional): vlan10 IP

Lease Time: ☒ infinite ☐  days  hours (Optional)  minutes (Optional)

**Extended Options**

+ Add  Edit  Remove

#	Name	Code	Type	Value
No data to display				

Page 1 of 1 | Show 50 items

☐ Enable IP/MAC Binding

☐ Enable Logs for IP/MAC Binding Violation

Static DHCP Table + Add  Edit  Remove

OK Cancel

## Step 2: Configuration &gt; Network &gt; Interface &gt; VLAN

(1) Add internal VLAN base on lan2 port, and set VLAN ID: 20

(2) Set the VLAN interface IP Address with 172.88.20.1/24

**Edit VLAN** [?] [X]

Hide Advanced Settings

**General Settings**

☒ Enable Interface

**Interface Properties**

Interface Type: internal

Interface Name: vlan20

Zone: LAN2

Base Port: lan2

VLAN ID: 20 (1-4094)

Description:  (Optional)

**IP Address Assignment**

IP Address: 172.88.20.1

Subnet Mask: 255.255.255.0

**Interface Parameters**

Egress Bandwidth: 1048576 Kbps

Ingress Bandwidth: 1048576 Kbps

OK Cancel

## (3) Set DHCP Server with IP Pool Start Address from 172.88.20.2

**Edit VLAN**

Hide Advanced Settings

**DHCP Setting**

DHCP: DHCP Server

IP Pool Start Address (Optional): 172.88.20.2 Pool Size: 200

First DNS Server (Optional): Device

Second DNS Server (Optional): Custom Defined

Third DNS Server (Optional): Custom Defined

First WINS Server (Optional):

Second WINS Server (Optional):

Default Router (Optional): vlan20 IP

Lease Time: ☒ infinite ☐    days    hours (Optional)    minutes (Optional)

**Extended Options**

+ Add ✎ Edit ✖ Remove

#	Name	Code	Type	Value
No data to display				

Page 1 of 1 Show 50 items

☐ Enable IP/MAC Binding

☐ Enable Logs for IP/MAC Binding Violation

Static DHCP Table

+ Add ✎ Edit ✖ Remove

OK Cancel

Task 2. Control AP by AP Profile to provide SSID for access.

Step 1: **Configuration > Object > AP Profile > SSID > Add**

**CONFIGURATION**

Quick Setup

- Licensing
- Wireless
- Network
  - Web Authentication
  - Firewall
  - Billing
  - Printer Manager
  - Free Time
  - SMS
- VPN
- BWM
- Object
  - User/Group
  - AP Profile**
    - Address
    - Service
    - Schedule
    - AAA Server
    - Auth. Method
    - Certificate
    - ISP Account
- System
- Log & Report

**Radio** **SSID**

**SSID List** Security List MAC Filter List

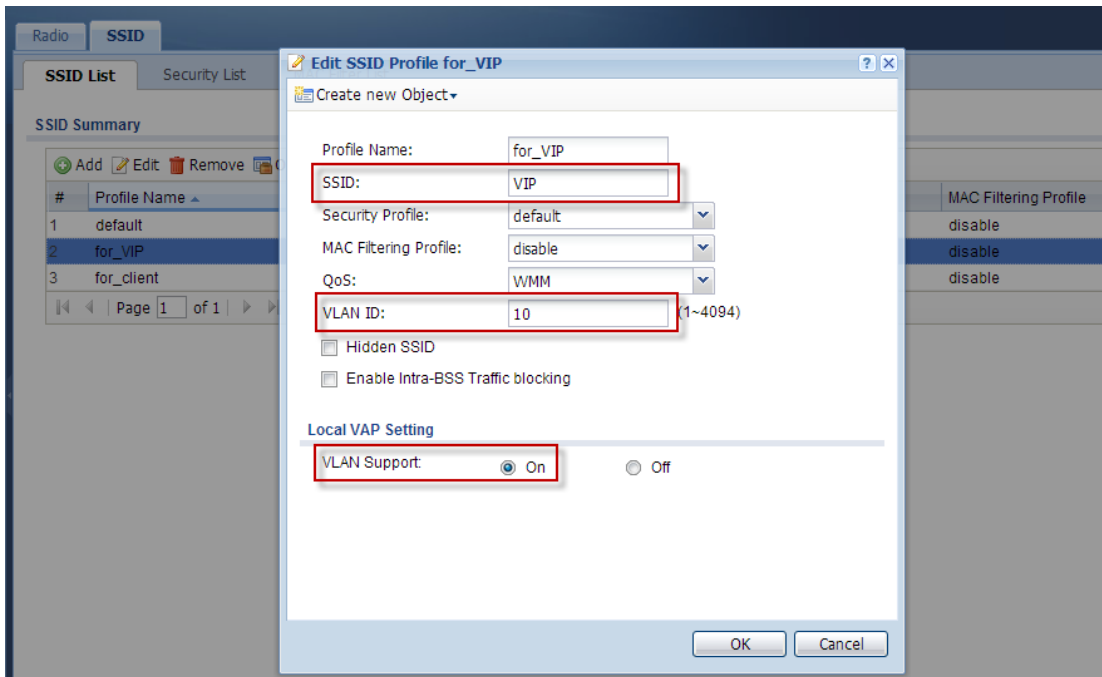
**SSID Summary**

+ Add ✎ Edit ✖ Remove 🔗 Object Reference

#	Profile Name	SSID	Security Profile	QoS	MAC Filtering Profile	VLAN ID
1	default	Guest	default	WMM	disable	1

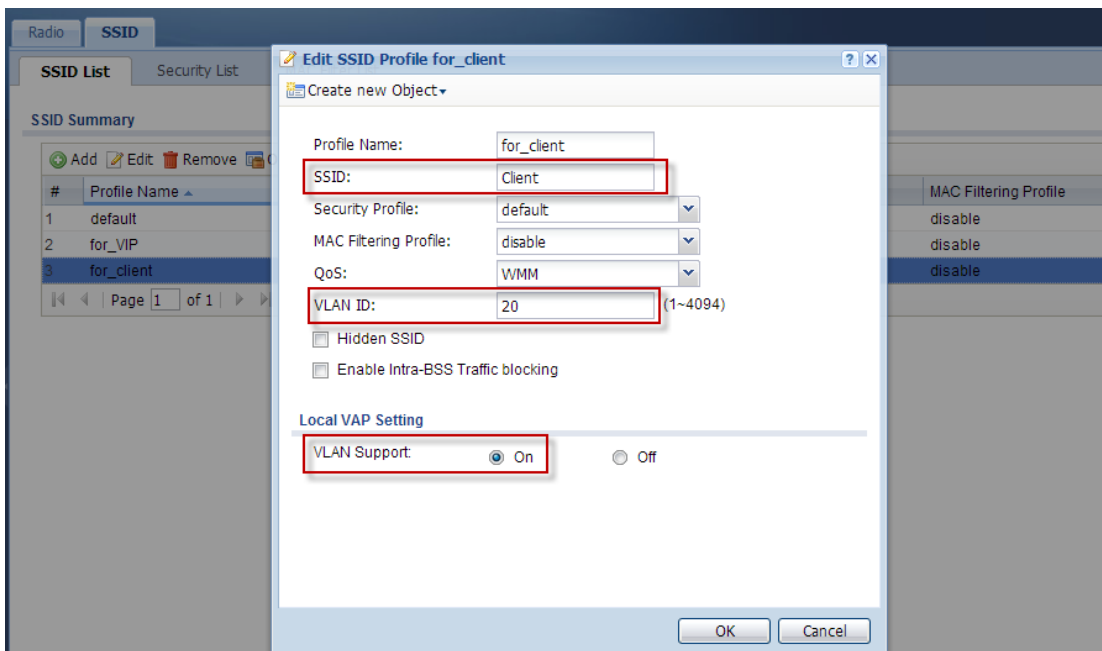
Page 1 of 1 Show 50 items Displaying 1 - 1 of 1

- (1) Add the SSID of VIP for VIP use
- (2) Select the VLAN ID: 10 to connect with VLAN10
- (3) Choose VLAN Support with On

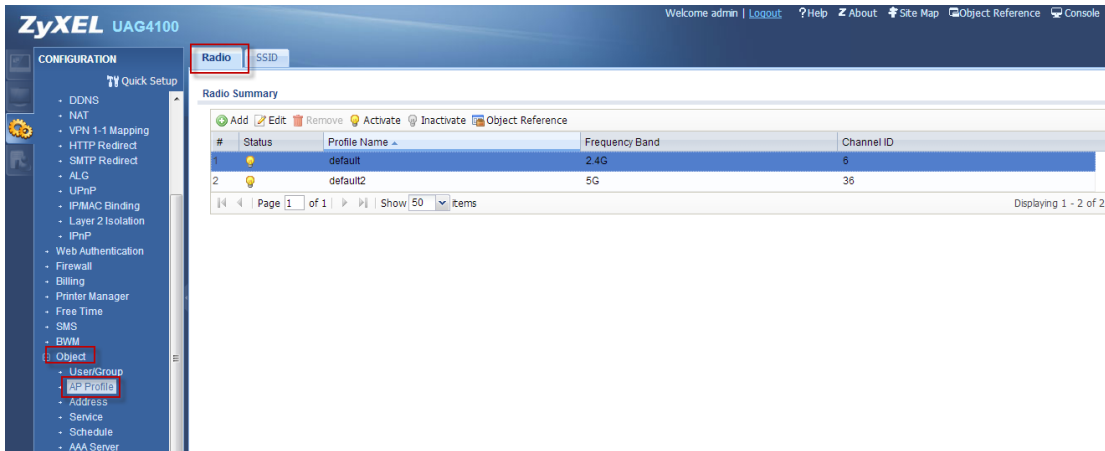


Step 2: **Configuration > Object > AP Profile > SSID > Add** another SSID

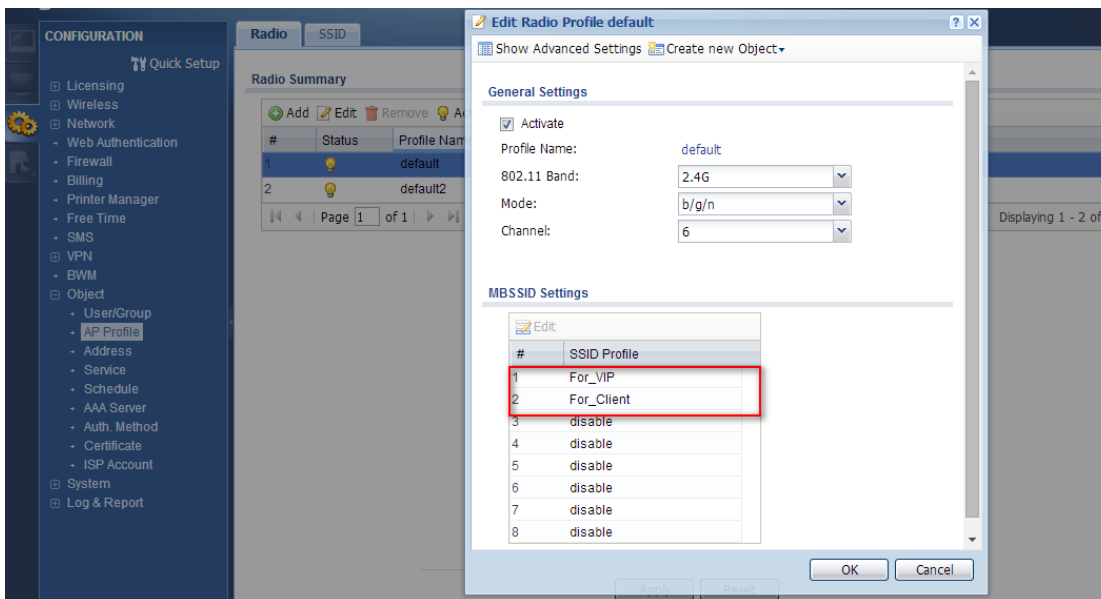
- (1) Add the SSID of Client for Client use
- (2) Select the VLAN ID: 20 to connect with VLAN20
- (3) Choose VLAN Support with On



Step 3: **Configuration > Object > AP Profile > Ratio** > you can select **default 2.4G** or **default2 5G** by device ratio.



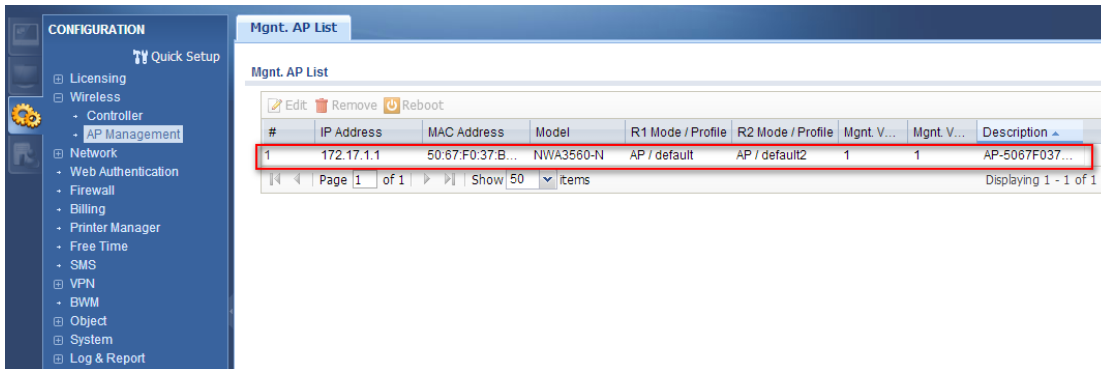
- (1) Set SSID Profile with “for\_VIP” which we configured AP Profile
- (2) Set SSID Profile with “for\_client” which we configured AP Profile



**Verification:**

1. Connect NWA3560-N AP directly under UAG Lan2 and check **Configuration > Wireless > AP Management**

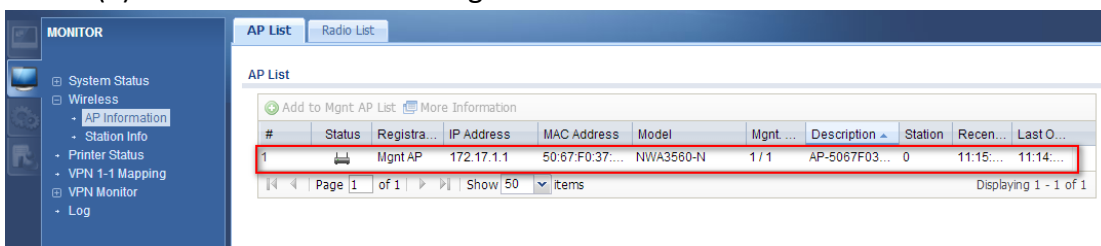
- (1) Check UAG has manage and control the model of NWA3560-N
- (2) And NWA3560-N AP has get the IP with 172.17.1.1 under Lan2



#	IP Address	MAC Address	Model	R1 Mode / Profile	R2 Mode / Profile	Mgmt. V...	Mgmt. V...	Description
1	172.17.1.1	50:67:F0:37:B...	NWA3560-N	AP / default	AP / default2	1	1	AP-5067F037...

2. You can also double confirm **Monitor > Wireless > AP Information**

- (1) Check UAG has manage and control the model of NWA3560-N
- (2) And NWA3560-N AP has get the IP with 172.17.1.1 under Lan2



#	Status	Registra...	IP Address	MAC Address	Model	Mgmt. ...	Description	Station	Recen...	Last O...
1	📶	Mgmt AP	172.17.1.1	50:67:F0:37:...	NWA3560-N	1 / 1	AP-5067F037...	0	11:15:...	11:14:...

3. Connect laptop with SSID VIP, and you can get the IP Address of 172.88.10.3 under VLAN10 from AP.

```

命令提示字元
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

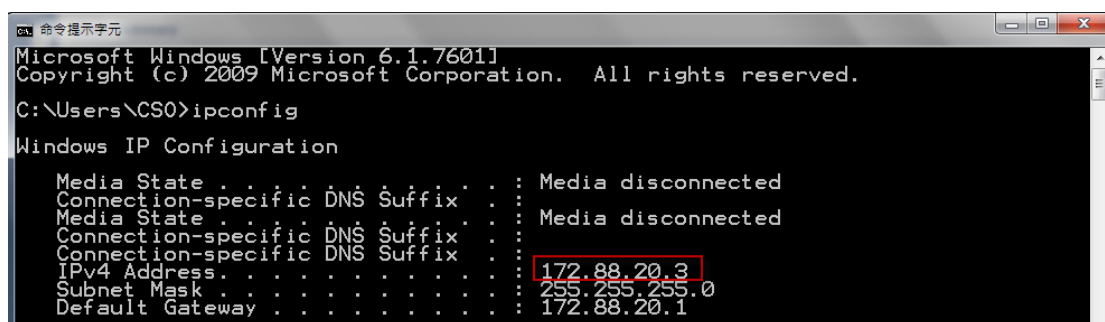
C:\Users\CS0>ipconfig

Windows IP Configuration

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : Media disconnected
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . :
IPv4 Address. . . . . : 172.88.10.3
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.88.10.1

```

4. Connect laptop with SSID Client, and you can get the IP Address of 172.88.20.3 under VLAN20 from AP.



```
命令提示字元
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\CS0>ipconfig

Windows IP Configuration

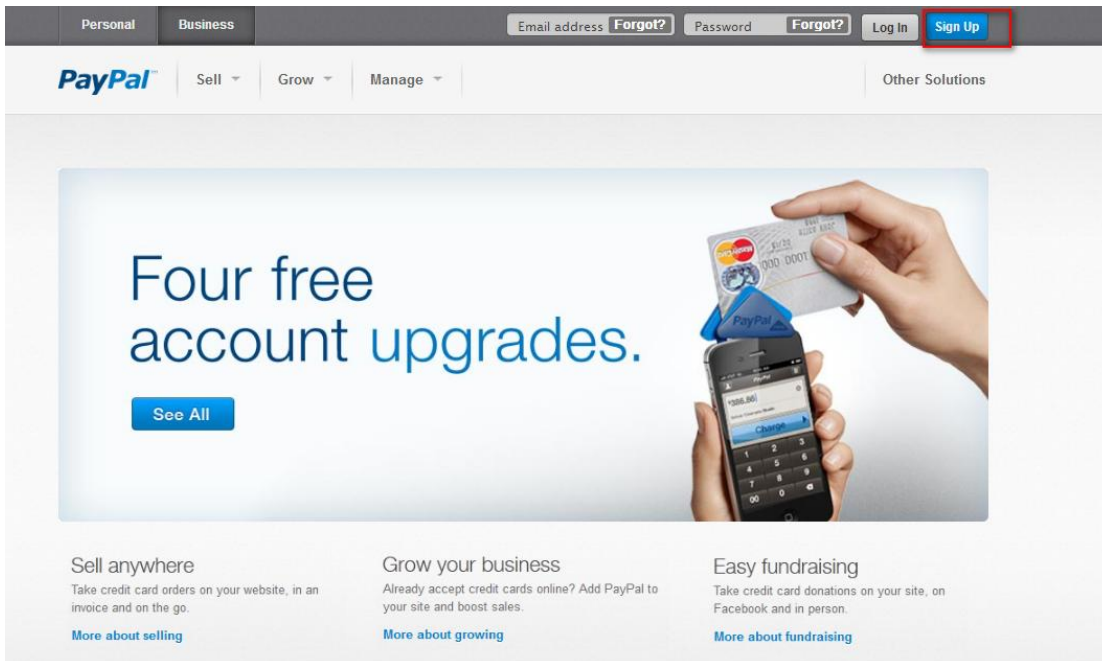
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . : 
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . : 
Connection-specific DNS Suffix . . . . : 
IPv4 Address. . . . . : 172.88.20.3
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.88.20.1
```

## Appendix

### Create and Set test account on the PayPal server:

Step 1: Register a personal account on the PayPal server.

(1) Go to <https://www.paypal.com> and Click “Sign up” button to start the registration process.





(2) Click **Personal** type to **Get Started** register a PayPal account.

[Log In](#) | [Help](#) | [Security Center](#)

**PayPal**

---


**Create your PayPal account** [Secure](#) 

Your country or region  
 

Your language

Already have a PayPal account? [Upgrade now.](#)

Personal	Premier	Business
For individual who shop online	For individual who buy and sell online	For merchants who use a company or group name
<a href="#">Get Started</a>	<a href="#">Get Started</a>	<a href="#">Get Started</a>
<ul style="list-style-type: none"> <li>Free to register. The perfect account for buyers who want to shop online.</li> </ul>	<ul style="list-style-type: none"> <li>Free to register. Low fees charged for receiving payments.</li> <li>The perfect account for casual sellers who make occasional sales and purchases online.</li> </ul>	<ul style="list-style-type: none"> <li>Free to register. Low fees charged for receiving payments.</li> <li>The account for business merchants who use a company or group name with high transaction volumes.</li> <li>You can accept all payment types for low fees, even from customers without PayPal accounts.</li> </ul>

 [Learn about PayPal fees.](#)

- (3) Register your account information in the check box and click “**Agree and Create account**”. And then enter the **Security code** in the check box and enter the **Security question** to submit the registration.



## Enter your information

Secure

Please fill in all fields.

## Email address

You will use this to log in to PayPal

## Choose a password

## Re-enter password

## Last name

(Please enter your name as shown on your bank account. If it is Chinese, enter Chinese characters.)

## First name (Given name)

## Date of birth

yyyy mm dd

## Nationality

## City / County

## Township / District

## Postal code (optional)

## Address line 1

## Address line 2 (optional)

Phone number [Why is this needed? \(+886\)](#)

Consumer advisory - The PayPal™ payment service is regarded as a stored value facility under Singapore law. PayPal Pte. Ltd., the Holder of the PayPal™ stored value facility, does not require the approval of the Monetary Authority of Singapore. Consumers (users) are advised to read the terms and conditions carefully.


By clicking the button, I agree to the PayPal [User Agreement](#)[Contact Us](#)

Copyright © 1999-2013 PayPal. All rights reserved.


Consumer advisory- PayPal Pte. Ltd., the holder of PayPal's stored value facility, does not require the approval of the Monetary Authority of Singapore. Users are advised to read the [terms and conditions](#) carefully.

- (4) Since we just register an account to test the PayPal function, so you can choose to ignore the **Credit card information** at this part.

[Log Out](#) | [Help](#) | [Security Center](#)


---

**Congratulations! You've signed up for a PayPal account** [Secure](#) 

There are a couple of things you'll need to do to get started using your account.

- > Confirm your email address [jerry751016@hotmail.com](#) to activate your PayPal account.
- > Add your credit card to start buying with PayPal right away.


Credit card number

Expiration date

--Month--  
--Year--

Billing address: No. 3, Sec. 3, Lingyun Rd.,  
Wugu Dist.  
Wugu Dist.  
Taipei County, 248  
[Change](#)

[Continue](#)



**Pay with my credit card**

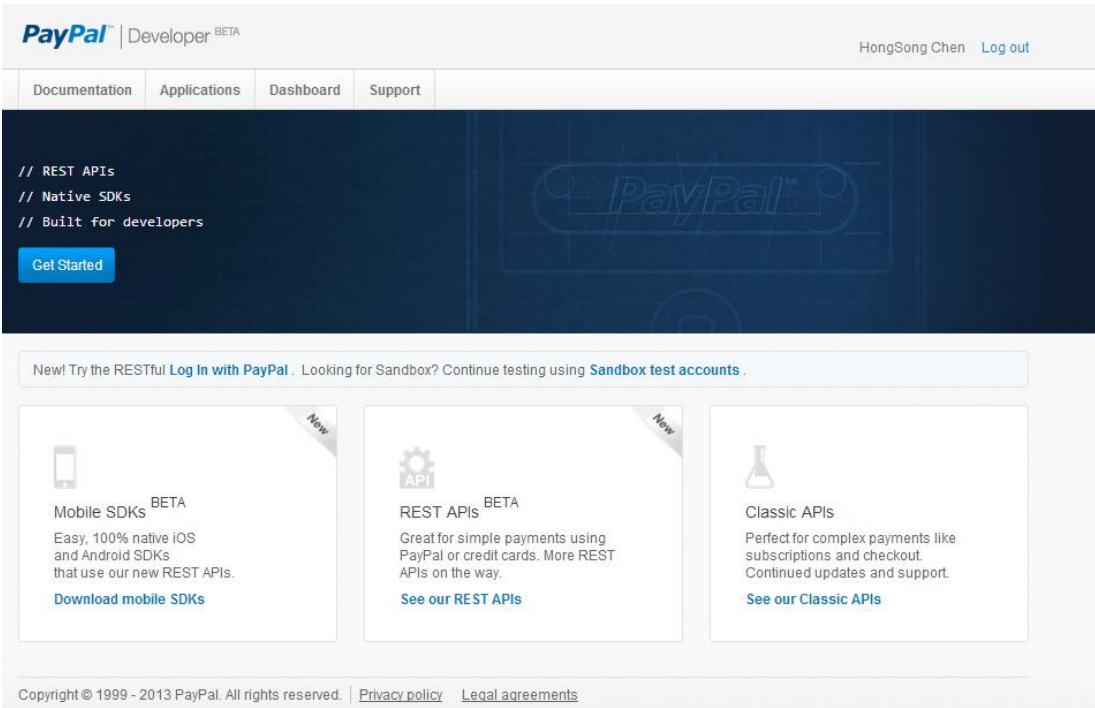
- > Pay without revealing your card information to merchants.
- > No need to retype your credit card information.
- > Your purchase is protected with "PayPal Buyer Protection".

[Go to My Account](#)

[Contact Us](#)

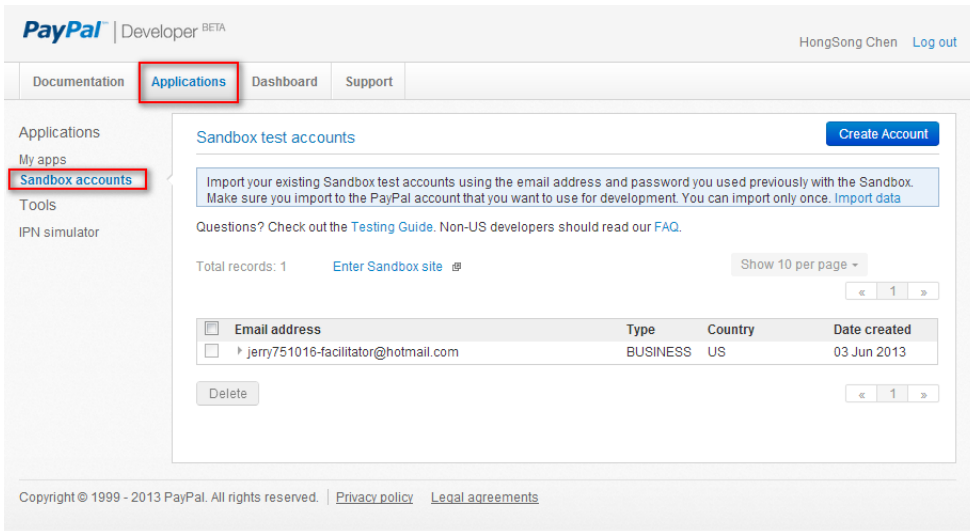
Step 2: Login to PayPal and register the test account on developer web site, first create a **Seller account** in developer web site.

(1) Access to <https://developer.paypal.com> web site and login the PayPal account.

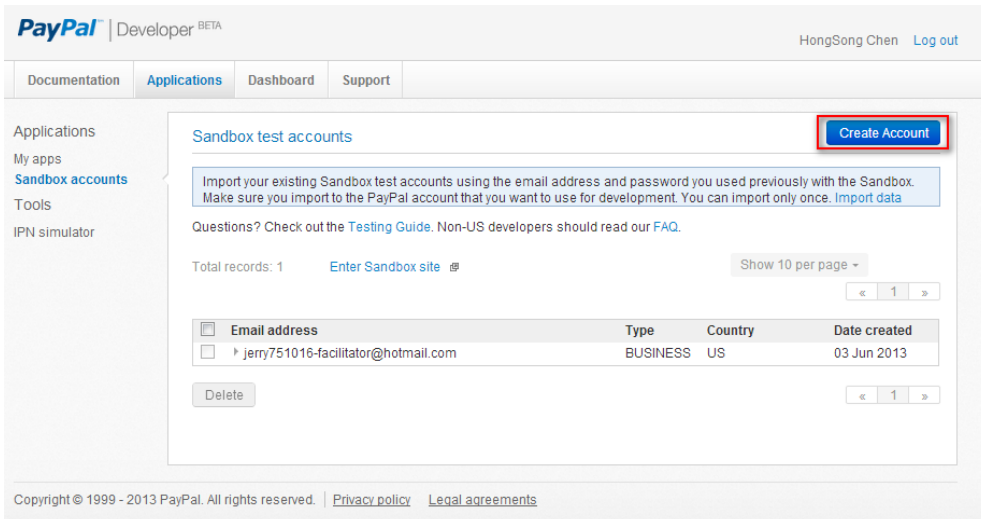


The screenshot shows the PayPal Developer website dashboard. At the top, there's a header with the PayPal logo, "Developer BETA", and a user profile for "HongSong Chen" with a "Log out" link. Below the header is a navigation bar with tabs: "Documentation", "Applications", "Dashboard", and "Support". The main content area has a dark blue header with the text "REST APIs", "Native SDKs", and "Built for developers", along with a "Get Started" button. Below this is a light blue banner that says "New! Try the RESTful Log In with PayPal. Looking for Sandbox? Continue testing using Sandbox test accounts." The main content area features three cards, each marked with a "New" tag in the top right corner. The first card is for "Mobile SDKs BETA", described as "Easy, 100% native iOS and Android SDKs that use our new REST APIs", with a "Download mobile SDKs" link. The second card is for "REST APIs BETA", described as "Great for simple payments using PayPal or credit cards. More REST APIs on the way.", with a "See our REST APIs" link. The third card is for "Classic APIs", described as "Perfect for complex payments like subscriptions and checkout. Continued updates and support.", with a "See our Classic APIs" link. At the bottom, there's a footer with copyright information: "Copyright © 1999 - 2013 PayPal. All rights reserved." and links to "Privacy policy" and "Legal agreements".

(2) Click **Applications> Sandbox accounts** button to create the account on developer web site.



(3) Click **Create Account** button to create a “**Seller**” account on developer web site.



(4) Enter the Seller e-mail and password. And the account type should select as “**Business**”.

**PayPal** | Developer BETA HongSong Chen [Log out](#)

Documentation Applications Dashboard Support

Applications  
My apps  
[Sandbox accounts](#)  
Tools  
IPN simulator

### Create test account

Create a personal or business test account, you can also create accounts on [sandbox.paypal.com](#), and they'll appear here.

**Account details**

Country  
United States

Account type  
☐ Personal (buyer account)  
☒ **Business (merchant account)**

Email address  
seller-a@gmail.com Available

Password (8-20 characters)  
\*\*\*\*\*

First name (optional)

Last name (optional)

**Payment methods**

PayPal balance  
0.00 USD

Bank verified account  
☒ Yes ☐ No

Credit card type  
None

**Log in with PayPal**

Your customers can log in to your site with their [PayPal login](#).  
Provide the details below to get your Log in with PayPal credentials.

☐ I want to add Log in with PayPal to my site.

Notes (optional)

[Create Account](#) [Cancel](#)

Copyright © 1999 - 2013 PayPal. All rights reserved. | [Privacy policy](#) | [Legal agreements](#)

(5) Use Seller's account to login to Sandbox web site to modified profile information.

(<https://www.sandbox.paypal.com/>)

**PayPal** | Developer BETA HongSong Chen [Log out](#)

Documentation Applications Dashboard Support

Applications  
My apps  
[Sandbox accounts](#)  
Tools  
IPN simulator

### Sandbox test accounts

[Create Account](#)

Import your existing Sandbox test accounts using the email address and password you used previously with the Sandbox. Make sure you import to the PayPal account that you want to use for development. You can import only once. [Import data](#)

Questions? Check out the [Testing Guide](#). Non-US developers should read our [FAQ](#).

Total records: 2 [Enter Sandbox site](#) Show 10 per page « 1 »

	Email address	Type	Country	Date created
<input checked="" type="checkbox"/>	seller-a@gmail.com <a href="#">Profile</a>   <a href="#">Notifications</a>	BUSINESS	US	03 Jun 2013
<input type="checkbox"/>	jerry751016-facilitator@hotmail.com	BUSINESS	US	03 Jun 2013

[Delete](#) « 1 »

a. Go to **Profile > Website payments preferences** to enable Auto Return for Website Payments.

PayPal Sandbox

logged in as jerry751016@hotmail.com. [U.S. English](#)

Test Site

[Log Out](#) | [Help](#) | [Security Center](#)

PayPal

My Account | Send Money | Request Money | Merchant Services | Auction Tools | Products and Services

Overview | Add Funds | Withdraw | History | Resolution Center | Reports | **Profile**

**Profile** [Help with this page](#)

Business: HongSong Chen's Test Store(seller-a@gmail.com)  
Secure Merchant ID: HLNVCV7QTLAK4

View and edit your account settings, and check the status of your products and services.

Services	Status
PayPal Payments Pro	Live
Virtual Terminal	Live
Fraud Management	Live
Recurring Payments	Live
PayPal Express Checkout	Live

**My Business Setup**  
Your guide to getting paid. [Start Now](#)

**Billing**  
[Manage monthly billing](#)

**Account information**

- Email
- Street address
- Phones and mobile payments
- Password
- Tax ID number
- Security key
- Notification/information sharing
- Language preference
- Time zone
- Manage Users
- Request API credentials
- Business information
- Close Account
- Identification Preference

**Security and risk settings**

- Payment receiving preferences

**Report settings**

- Manage Report subscriptions
- Secure FTP server settings

**Selling preferences**

- Auctions
- Customer service message
- PayPal shops website registration
- Invoice templates
- Instant Payment Notification preferences
- Language Encoding
- Create New Button

**Financial information**

- Bank accounts
- Credit cards
- PayPal-branded debit/ATM cards
- Manage currency balances
- Redemption codes
- Monthly Account Statements
- Preapproved Payments
- Recurring payments dashboard

**Hosted payment settings**

- Website payments preferences**
- Website payment certificates
- Custom page styles
- VAT
- Postal preferences
- Shipping calculator

[About Us](#) | [Fees](#) | [Privacy](#) | [Contact Us](#) | [Legal/Agreements](#) | [Site Feedback](#) | [H](#)

[About SSL Certificates](#)

Copyright © 1999-2013 PayPal. All rights reserved.

[Fees](#) | [Privacy](#) | [Security Center](#) | [Contact Us](#) | [User Agreement](#) PayPal, an eBay Company

Copyright © 1999-2013 PayPal. All rights reserved.  
[Information about FDIC pass-through insurance](#)

Notice that setting **Website Payment Preferences** with Turn on “**Auto Return**”, and Enter Return URL: <http://1.1.1.1>, and also Turn on “**Payment Data Transfer**”.

[Log Out](#) | [Help](#) | [Security Center](#)

**PayPal**

**My Account** | **Send Money** | **Request Money** | **Merchant Services** | **Auction Tools** | **Products and Services**

[Overview](#) | [Add Funds](#) | [Withdraw](#) | [History](#) | [Resolution Center](#) | [Reports](#) | [Profile](#)

**Website Payment Preferences** [Back to My Profile](#)

**Auto Return for Website Payments**

Auto Return for Website Payments brings your buyers back to your website immediately after payment completion. Auto Return applies to PayPal Website Payments, including Buy Now, Donations, Subscriptions, and Shopping Cart. [Learn More](#)

Auto Return: ☒ On  
☐ Off

Return URL: Enter the URL that will be used to redirect your customers upon payment completion. This URL must meet the guidelines detailed below. [Learn More](#)

Return URL:

**Return URL Requirements:** The following items are required in order to set up Auto Return.

- Per the user agreement, you must provide verbiage on the page displayed by the Return URL that will help the buyer understand that the payment has been made and that the transaction has been completed.
- You must provide verbiage on the page displayed by the Return URL that explains that payment transaction details will be emailed to the buyer.
- Example: Thank you for your payment. Your transaction has been completed, and a receipt for your purchase has been emailed to you. You may log into your account at [www.sandbox.paypal.com/us](http://www.sandbox.paypal.com/us) to view details of this transaction.

---

**Payment Data Transfer (optional)**

Payment Data Transfer allows you to receive notification of successful payments as they are made. The use of Payment Data Transfer depends on your [system configuration](#) and your Return URL. Please note that in order to use Payment Data Transfer, you must turn on Auto Return.

Payment Data Transfer: ☒ On  
☐ Off

---

**Encrypted Website Payments**

Using encryption enhances the security of website payments by decreasing the possibility that a 3rd party could manipulate the data in your button code. If you plan on only using encrypted buttons you can block payments from non-encrypted ones.

[Learn more about Encrypted Website Payments](#)

**Note:** If you enable Encrypted Website Payments, all of your Buy Now, Donations, and Subscriptions buttons **must** be encrypted via one of the following methods:

- Using the [Button Factory](#) with the security settings enabled.
- Using your own code, you encrypt all website payments before sending them to PayPal.

By enabling this feature, any Buy Now, Donation, or Subscription button that is not encrypted will be rejected by PayPal.

Block Non-encrypted Website Payment: ☐ On  
☒ Off

---

**PayPal Account Optional**

When this feature is turned on, your customers will go through an optimized checkout experience. This feature is available for Buy Now, Donations, and Shopping Cart buttons, but not for Subscription buttons. [Learn More](#)

PayPal Account Optional: ☒ On  
☐ Off

---

**Contact Telephone Number**

When you activate this option, your customers will be asked to include a Contact Telephone Number with their payment information. [Learn More](#)

**Note:** Selecting **On (Required Field)** could have a negative effect on buyer conversion.

Contact Telephone: ☐ On (Optional Field)  
☐ On (Required Field)  
☒ Off (PayPal recommends this option)

---

**Express Checkout Settings**

With this setting you determine if you technically support the German funding methods giropay and bank transfer in your Express Checkout implementation.

Support giropay and bank transfer payments: ☐ Yes  
☒ No

[About Us](#) | [Fees](#) | [Privacy](#) | [Contact Us](#) | [Legal Agreements](#) | [Site Feedback](#) (+)

Copyright © 1999-2013 PayPal. All rights reserved.

b. Go to **Payment receiving preferences** to modify allow different currency to my account.

**PayPal** Sandbox logged in as jerry751016@hotmail.com [U.S. English](#)

**Test Site** [Log Out](#) | [Help](#) | [Security Center](#)

**PayPal**

**My Account** | **Send Money** | **Request Money** | **Merchant Services** | **Auction Tools** | **Products and Services**

[Overview](#) | [Add Funds](#) | [Withdraw](#) | [History](#) | [Resolution Center](#) | [Reports](#) | **Profile**

**Profile** [Help with this page](#)

Business: HongSong Chen's Test Store(seller-a@gmail.com)  
Secure Merchant ID: HLNVCV7QTLAK4

View and edit your account settings, and check the status of your products and services.

Services	Status
PayPal Payments Pro	Live
Virtual Terminal	Live
Fraud Management	Live
Recurring Payments	Live
PayPal Express Checkout	Live

**My Business Setup**  
Your guide to getting paid. [Start Now](#)

**Billing**  
> [Manage monthly billing](#)

**Account information**

- > [Email](#)
- > [Street address](#)
- > [Phones and mobile payments](#)
- > [Password](#)
- > [Tax ID number](#)
- > [Security key](#)
- > [Notification/information sharing](#)
- > [Language preference](#)
- > [Time zone](#)
- > [Manage Users](#)
- > [Request API credentials](#)
- > [Business information](#)
- > [Close Account](#)
- > [Identification Preference](#)

**Security and risk settings**  
> [Payment receiving preferences](#)

**Report settings**

- > [Manage Report subscriptions](#)
- > [Secure FTP server settings](#)

**Selling preferences**

- > [Auctions](#)
- > [Customer service message](#)
- > [PayPal shops website registration](#)
- > [Invoice templates](#)
- > [Instant Payment Notification preferences](#)
- > [Language Encoding](#)
- > [Create New Button](#)


**Financial information**

- > [Bank accounts](#)
- > [Credit cards](#)
- > [PayPal-branded debit/ATM cards](#)
- > [Manage currency balances](#)
- > [Redemption codes](#)
- > [Monthly Account Statements](#)
- > [Preapproved Payments](#)
- > [Recurring payments dashboard](#)

**Hosted payment settings**

- > [Website payments preferences](#)
- > [Website payment certificates](#)
- > [Custom page styles](#)
- > [VAT](#)
- > [Postal preferences](#)
- > [Shipping calculator](#)

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[About SSL Certificates](#)

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[Information about FDIC pass-through insurance](#)

Notice that to select “No, accept them and convert them to U.S. Dollars”.

[Log Out](#) | [Help](#) | [Security Center](#)

**PayPal**

**My Account** | **Send Money** | **Request Money** | **Merchant Services** | **Auction Tools** | **Products and Services**

[Overview](#) | [Add Funds](#) | [Withdraw](#) | [History](#) | [Resolution Center](#) | [Reports](#) | [Profile](#)

### Payment Receiving Preferences [Back to My Profile](#)

Block Payments for the items not sold on eBay from U.S. users who **do not** provide a confirmed address:

☐ Yes  
☒ No  
☐ Ask Me

Block payments sent to me in a currency I do not hold:

☐ Yes  
☒ No, accept them and convert them to U.S. Dollars  
☐ Ask Me

Block accidental payments:  
 You may prevent accidental payments by blocking duplicate invoice IDs

☒ Yes, block multiple payments per invoice ID  
☐ No, allow multiple payments per invoice ID

Block payments from users who:

☐ Have non-U.S. PayPal accounts  
☐ Initiate payments from the Pay Anyone subtab of the Send Money tab  
 (If checked, you may enter an Alternate Payment URL for your buyers.)

Alternate Payment URL:  ?  
 (optional)

Block the following payments:

☐ Pay with eCheck or German bank transfer for all website payments except eBay. **NOTE:** You may not block eCheck payments on eBay.  
☐ Payment by

Block payments from Student account users under 18 years old:

☐ Yes  
☒ No, allow payments from all Student account users

Display "Add Instructions to Seller" text input field:

☒ Yes  
☐ No

The Credit Card Statement Name is the name that will appear on your customers' credit card statements.

The name can be 11 alpha-numeric characters in length, including spaces.

For some payments, the name can be extended to 19 alpha-numeric characters in length, including spaces. [Learn More](#)

Credit Card Statement Name:  (11 Character Maximum)

Extended Credit Card Statement Name:  (19 Character Maximum)

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Step 3: Login to PayPal and register the test account on developer web site, second create a **Buyer account** in developer web site.

(1) Click **Create Account** button to create a “**Buyer**” account on developer web site.

PayPal Developer BETA HongSong Chen Log out

Documentation Applications Dashboard Support

Applications  
My apps  
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Sandbox test accounts **Create Account**

Import your existing Sandbox test accounts using the email address and password you used previously with the Sandbox. Make sure you import to the PayPal account that you want to use for development. You can import only once. [Import data](#)

Questions? Check out the [Testing Guide](#). Non-US developers should read our [FAQ](#).

Total records: 1 [Enter Sandbox site](#) Show 10 per page

<input type="checkbox"/>	Email address	Type	Country	Date created
<input type="checkbox"/>	jerry751016-facilitator@hotmail.com	BUSINESS	US	03 Jun 2013

Delete

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- (2) Enter the Buyer e-mail and password. And the account type should select as “**Personal**”, and also you can setup this user has **1000** USD in this account.

PayPal Developer BETA HongSong Chen Log out

Documentation Applications Dashboard Support

Applications  
My apps  
Sandbox accounts  
Tools  
IPN simulator

Create test account

Create a personal or business test account, you can also create accounts on [sandbox.paypal.com](#), and they'll appear here.

Account details

Country  
United States

Account type  
☒ Personal (buyer account)  
☐ Business (merchant account)

Email address  
buyer-a@gmail.com Available

Password (8-20 characters)  
\*\*\*\*\*

First name (optional)

Last name (optional)

Payment methods

PayPal balance  
1000.00 USD

Bank verified account  
☒ Yes ☐ No

Select payment card  
☒ Discover ☐ PayPal

Credit card type  
None

Notes (optional)

Create Account Cancel

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