ZYXEL

Unified Access Gateway Application Note

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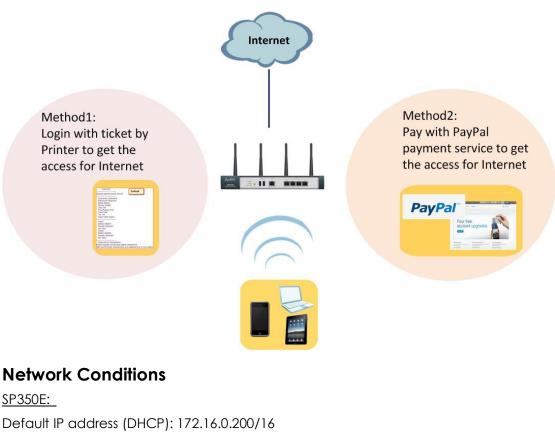
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Scenario 1 – Activate a Paid Access Hotspot

In a hotspot, there are various customers who need to access the Internet. The UAG4100 can effectively control the access to the Internet. If we would like our customers to use payment services to access the Internet, there are two ways to achieve this on the UAG4100. One method is by using a printer, and the other method is the PayPal payment service. As for the printer, customers can purchase tickets that are generated by the thermal printer, from the reception desk. For the customers that use the PayPal payment service can pay with their PayPal account to access the Internet using a web browser.



User Name: admin

Password: 1234

Port Number: 9100

Goals to Achieve

1) Easily control customer access to the Internet with payment services.



2) Customer can pay with PayPal or buy tickets from the reception to access the Internet.

Print ticket to access the Internet

Step 1: Configure the Printer Manager GUI

Configuration > Printer Manager > check General > Edit port with printer:
 9100.

Z	YXEL UAG4100				Welcome admin <u>Loqout</u>	?Help
2	CONFIGURATION	General	Printout Configuration			
	T¥ Quick Setup ⊡ Licensing	General Se Canab Printer Set Port: Encry Secre Printer Lis Mote: If you wa Add # 4	ting a Printer Manager ings 9100 vtion t Key: t to configure printer button, plea Edit Transformation Remove Activate Status IPv4 Addr Page 1 of 1 >> Show ware Information	Inactivate ess 50 Inactivate	Description	

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

	0	Add Rule		? ×
		🔽 Enable Printer Manag	er	
		IPv4 Address:	172.16.0.200	
ł		Description:	new create	(Optional)
	10%	Description √ 50 v items	ОК	Cancel



Step 2: Configuration > Monitor > Printer Status > check the Status with "sync success".

MONITOR	Printer Status	
System Status	Printer List	
 Port Statistics Interface Status 	2 Refresh	
Traffic Statistics	# IPv4 Address Update Time Status Description Firmware Version	
Session Monitor	1 172.16.0.200 2013/05/27 08:12:15 sync success new create n/a	
 DDNS Status IP/MAC Binding 	I I of 1 ▶ ▶ Show 50 v items Displaying 1 - 1	of
Login Users UPnP Port Status USB Storage Dynamic Guest Wireless Printer Status VPN 1-1 Mapping		
+ Log		



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.

Z			Welcome admin <u>Logor</u>	t ?Help	Z About	🕈 Site Map	Cobject Reference	🖵 Console	C C I
	CONFIGURATION TY Quick Setup Licensing Wireless Network Veb Authentication Firewall Billing Printer Manager Free Time SMS BWM Object System Log & Report	Use Note To uplo Notice: Preview File Na File Pa Restor	Printout Configuration ettings Default Printout Configuration Customized Printout Configuration ad a customized printout configurat 1. The filename you chose should 2. The file format should be 'UTF-8' w. Printout Preview me: printout ba	tion, browse I be 'printou' Download	the location but	n and then cliv Browse		₩ Console	
		<u>Downlo</u>	ad the customized printout configu	Apply		set			



Step 4: Configuration > Printer Manager > check Printout Configuration > you can choose Use Default or Customized Printout Configuration > Preview: click Printout Preview > a pop=up window will be displayed with the Default printout configuration or the Customized printout configuration ticket format for preview.

Welcome! Default	Welcome to zycamp!
Hotspot internet access service	cycamp internet access service customized
Username: Username Password: Password Billing: Billing Service: Profile Unit: Unit Time Period: Time Total: Total Tax: Tax Grand Total: Grand Wlan1 ESSID: ESSID1 Security: Security1 Key: Key1 Wlan2 ESSID: ESSID2 Security: Security2 Key: Key2	Voername: Username Password: Password Billing: Billing Service: Profile Unit: Unit Time Period: Time Total: Total Tax: Tax Grand Total: Grand Wlan1 ESSID: ESSID1 Security: Security1 Key: Key1 Wlan2 ESSID: ESSID2
Printout time: Printout-time Please activate your account before Activate-time After your first login, please finish your available time by Accu-expire	Security: Security2 Key: Key2 Printout time: Printout-time Please activate your account before Activate-time
	After your first login, please finish your available time by Accu-expire



Pay with PayPal payment service to access the Internet

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

ZyXEL UAG4100			Welco	me admin <u>Logout</u>	?Help ZAb	out 📲 Site Map	CObject Reference	🖵 Console	۵ ۵ ۵
CONFIGURATION	General	Biling Profile	Discount	Payment Service					
TY Quick Setup	General	Custom Se	rvice						
Licensing Wireless Network	General Set	ing							
Interface Routing	Enable	Payment Serv	ice						
+ Zone	Payment Pro	ovider Selectio	n						
DDNS NAT	Account:	s	eller-a@gmail.c	om					
 VPN 1-1 Mapping HTTP Redirect 	Currency:	E	uro(EUR)	*		_			
SMTP Redirect	Identity T	oken: >	nS25wofWOV	/9JGTrnGtyygIzKQZO-	1f5KdKg0z-AN	5t			
ALG UPnP	Payment 0	ateway: 🗤	vww.sandbox.	paypal.com/cgi-bin/we	bscr				
IP/MAC Binding Layer 2 Isolation	Account Del	ivery Method							
IPnP Web Authentication	Delivery M	ethod:	On-Screen	~					
web Addientication web Addientication Enting Free Time SMS BWM									
Object	•			m					
 Bystem ⊞ Log & Report 				Apply	Reset				

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

(1) Open the **Login page** after enabling the payment function. Then, you will see the link on the login page.

AG4100	Enter User Name/Password and click to login.
	User Name:
	Password:
	(max. 63 alphanumeric, printable characters and no spaces)
\frown	Without an account? Click here to get an account by online payment.
	Login Reset
	The second se
	D Note:
	 Turn on Javascript and Cookie setting in your web browser. Turn off Popup Window Blocking in your web browser.



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

#		Service Name	Service Time	Charge	Unit
1	\bigcirc	billing_1hr	1 hour	€ 1.00	1 💌
2	\bigcirc	billing_2hr	2 hours	€ 2.00	1 💌
3	۲	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 you to the PayPal authentication page.

HongSong Chen's Test Store

Your orde	er summary	Choose a way to pay	
Descriptions	Amount	Pay with my PayPal account	PayPal" 🔒
80 minutes em price: €3.00	€3.00	Log in to your account to complete the purchase	
uantity: 1		Email	
em total	€3.00	buyer-a@gmail.com	
	Total €3.00 EUR	PayPal password	
		Log In	
		Forgot email or password?	
		Porque email of password?	
		Don't have a PayPal account?	
		(Optional) Join PayPal for faster future checkout	
		(Optional) Joint ay a for laster future checkout	
		Cancel and return to HongSong Chen's Test Store.	

(4) After logging into the PayPal page, you can check your order.

HongSong Chen's Test Store

Your order s	ummary	
Descriptions	Amount	PayPal Electronic Communications Delivery Policy Consent
<mark>180 minutes</mark> Item price: €3.00 Quantity: 1	€3.00	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
Item total	€3.00	Please confirm that:
	Total €3.00 EUR	 Yes, Ive read and agree to the <u>Electronic Communications Delivery Policy</u>. 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 <u>Can I decline</u>? Cancel and return to HongSong Chen's Test Store.



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

HongSong Chen's Test Store

Your order	r summary		
Descriptions	Amount		PayPal" (
180 minutes Item price: €3.00	€3.00	Pay Now	
Quantity: 1		Shipping address 🖉 Change	
Item total	€3.00	HongSong Chen 1 Main St	
	Total €3.00 EUR	San Jose, CA 95131 United States	
		🗷 Use as preferred shipping address	
		Note to seller: <u>Add</u>	
		Payment methods 🖉 Change	
		PayPal Balance	\$4.20 USD
		PayPal Conversion Rate as of Jun 3, 2013: 1 0.714485 Euros	U.S. Dollar =
		PayPal gift card, certificate, reward, or oth View PayPal policies and your payment me	
		Contact information buyer-a@gmail.com	
		Pav Now	

(6) After clicking on the Pay Now button > PayPal will display a pop-up window to the following web page > and then redirect the login information to you after 10 seconds.

HongSong Chen's Test Store

Thanks for your order	PayPal` ≙
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, <u>click here</u> .	
PayPal. The safer, easier way to pay.	
For more information, read our User Agreement and Privacy Policy.	
Fest Site	



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

0

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

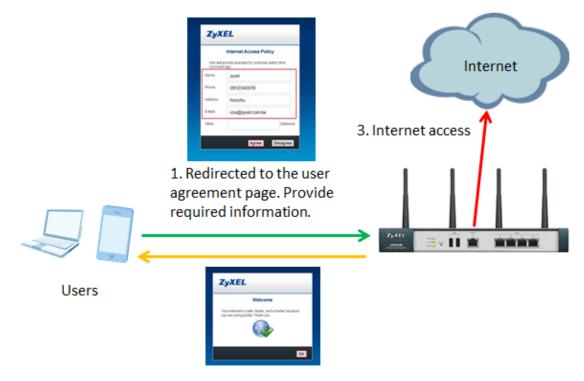
ZyXEL	jts3iw, You now have logged in.	
	Remaining time before lease timeout (dd, hh:mm:ss):	00 day, 00:26:51



Scenario 2 – Activate a Free Access Hotspot

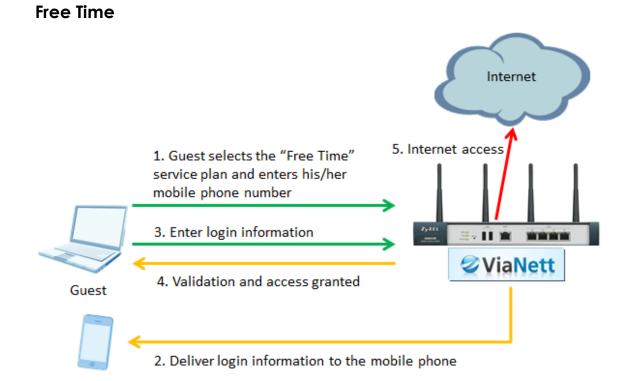
Some hotels need to provide free Internet services to hundreds of guests on a daily basis, and managing the Internet access for so many people can be very complicated without the right equipment. With web authentication such as user agreement and web portal, hotel guests are redirected to the web-based authentication portal upon the first attempt to access the network. In some countries, the law requires the identification and tracking of users who use public Internet access. The UAG4100 can authenticate people by forcing them to receive an authentication code via SMS on their phone. In this way, the UAG4100 can authentize user Internet access via their mobile phone number and keep track of the device in case of illegal activities via 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, to browse the Internet free of charge for a specified period of time, the user must entering his or her mobile phone number to receive the guest account information by SMS.

User Agreement



2. Click OK and access granted

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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 their personal information and accept the service usage agreement before they can access the Internet. After the form is submitted, the advertisement webpage will pop-up in a new window.
- (2) Allow any user to get account information by SMS and use the Internet free of charge for a limited time.

User Agreement

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



Authentication Walled	d Garden Advertis	sement	and the second				
eral Settings							
uthentication: 🔘 N	lone	🔘 Web Portal	User Agreem	ent			
Enable Idle Detection Idle timeout:							
	3	(1-60 minutes)					
authentication Time:	0	(0-1440 minutes, 0 is u	unlimited)				
Internal User Agreement]						
Use Customized Web	Pages						
Note:							
	e.html and ua_welcome	e.html within the ua.zip file	e ua.zip file and then click upl e. (Please keep ua_agree.htm				
Preview:	UA Agree	UA Welcome	2				
File Name:	ua.zip		Download				
File Path:	Select a file pat	th	Browse	Upload			
Restore Customized File to							
Download the customized in	nternal user agreement	example.	Restore				
Download the customized in External User Agreement	nternal user agreement	example.	Restore				
Download the outomized in External User Agreement Agreement URL: Welcome URL: Download the external user	nternal user agreement	example.		1			
Download the outomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add Creater	agreement example.	.example.		1			
Download the outomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add The Remove Exceptional Services	agreement example.	.example.		1			
Download the outomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add Creptional Services ~ DNS	agreement example.						
Download the outomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add Creation Remove Exceptional Services - DNS	agreement example.	example.				Displaying	1-10
Download the oustomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add Remove Exceptional Services - DNS Version of 1 / Version	agreement example.					Displaying :	1-10
Download the oustomized in External USer Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add @ Remove Exceptional Services A DNS 4 Page 1 of 1 P Authentication Policy Sun	agreement example.	Items				Displaying .	1-10
Download the oustomized in External USer Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add @ Remove Exceptional Services A DNS I I Page 1 of 1 P Authentication Policy Sun Add @Edk @Remove	agreement example.	itens	(optional		Description	Displaying :	1-10
Download the oustomized in External User Agreement Agreement URL: Welcome URL: Download the external user eptional Services Add Remove Exceptional Services - DNS Compared the output of the page 1 of 1 P Authentication Policy Sun Add Page 1 of 1 P Authentication Policy Sun Add Priority Source	agreement example.	items Pate Milliove Destination	(optional	Authentication	Description	Displaying :	1-10
Download the oustomized in External User Agreement Agreement URL: Welcome URL: Download the external user apptional Services Add Remove Exceptional Services - DNS Add Page 1 of 1 Add Page 1 of 1 Add Page 1 of 1 Add Page 1 of 1 Add Page 1 any	agreement example.	items ate MMove Destination any	(optional	Authentication	Description	Displaying :	1-10
Download the oustomized in External User Agreement Agreement URL: Welcome URL: Download the external user Pownload the external user and Page 1 of 1 Add 1 Add 1 of 1 Add 1	agreement example.	items Pate Milliove Destination	(optional	Authentication		Displaying : Displaying :	
Download the oustomized in External User Agreement Agreement URL: Welcome URL: Download the external user Pownload the external user and Page 1 of 1 Add 1 Add 1 of 1 Add 1	agreement example.	items ote Move Destination any any	(optional	Authentication			

Step 2: Configuration > Advertisement

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

Web A	uthentication Walled Garde	n Advertisement	
Gene	al Settings		
V	Enable Advertisement		
Adve	tisement Summary		
0	Add 📝 Edit 🍵 Remove		
#	Name		URL
1	ZyXEL		http://www.zyxel.com
14	4 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 the required information and click "Agree".

Internet Access Policy We will provide example for customer within html comment tag Name: zyxel Phone: 0912345678 Address: hsinchu E-Mail: cso@zyxel.com.tw Other: (Optional)
(We will provide example for customer within html comment tag) Name: zyxel Phone: 0912345678 Address: hsinchu E-Mait: cso@zyxel.com.tw
Phone: 0912345678 Address: hsinchu E-Mail: cso@zyxel.com.tw
Address: hsinchu E-Mail: cso@zyxel.com.tw
E-Mail: cso@zyxel.com.tw
CSO (JEZYACI. CONT. W
Other: (Optional)

2. Click "OK" and then the user can access the Internet.

EXERC Welcome Vour internet is safer, faster, and smarter because you are using portal. Thank you	
Your Internet is safer, faster, and smarter because you are using portal. Thank you	ZyXEL
you are using portal. Thank you	Welcome
	Your Internet is safer, faster, and smarter because you are using portal. Thank you
	ок

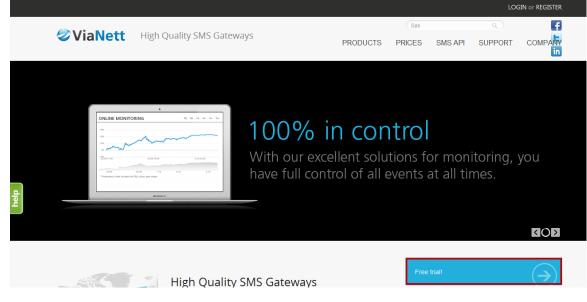


3. The advertisement webpage will be displayed in a new window as the first page whenever the user connects to the Internet.

Come to ZyXEL World	wide - Make the World C	Connect - Windows	Internet Explorer		
Z http://www	.zyxel.com/index.shtml		▼ 🗟 ⁴ 7 ×	Coogle Google	+ م
x Google				▼ 🛂 搜尋 🕶 🛺 分	享 更多設定 » 登入 🔧 🔹
🗙 🛄 Snagit 🗮 📷					
🚖 我的最愛 🛛 Z Welcom	ne to ZyXEL W	🟠 🕶 🖾 🔹 🖬	🖪 🖶 ▼ 網頁(P) ▼	安全性(S) ▼ 工具(O) ▼	• 🛛 • 🖧 🤚 🔊
					<u>^</u>
ZyXEL					
Select Your Region	Ser. 1			1121	
Global		1			
Africa			J. J. J.		
Asia		1 Co		et de la	A A A
Furana			11/8		1 to 1
Europe					
Latin America		11		THE REAL PROPERTY OF	
Middle East	and the				The -
					+
A 網頁發生錯誤。			● 網際網路	受保護模式:關閉	🖓 🔻 💐 100% 🔻 💡

Free Time

- Task . Enable SMS service on the UAG and select SMS as the delivery method in Free Time.
- Step 1: Register for a ViaNett account at <u>http://www.vianett.com</u>.





Fill in all the required information.

Free demonstration account	
Get started today!	Fill in to get a free account
✓ Send 5 SMS free of charge	Your name: E-mail: Mobile number:
What can we offer? SMS Bulk Worldwide Two-way Communication SMS Billing Services in Scandinavia HLR Worldwide	Company name: Country:
 ✓ HLR Wolliwide ✓ 13 APIs ✓ Great technical support ✓ Become a SMS Reseller ✓ ++ 	CREATE DEMO ACCOUNT Note: It is important that you enter correct information in all fields. We will send you the account information to the email address entered above. All accounts with invalid information will be deleted.

After the form has been submitted, the account information will be sent to your

Email address.

ViaNett	Efficiency with SMS
Welcome! We're happy	you joined us!
Here is your account information.	
Username <u>esbusec@gmail.com</u> Password	
<u>Go to login page</u>	_
You can send up to 5 SMS messages in t not be available in this period.	the test period, pricegroup and sender address will
More information You may purchase SMS credits with your	credit card by visiting <u>this page</u>
	start cooperating with us! If you have any ir customer service at <u>smssupport@vianett.com</u> .
Best Regards, ViaNett team ViaNett AS Norway Tel. •	-47 69 23 32 80 support@vianett.com



Purchase SMS credits

SMS ADMIN	Home	Configuration	Mobile Services	SMS Statistics	Account
PURCHASE SMS CREDITS SUB ACCOUNTS	Purchase SMS cre	dits (Prepa	id)		
ACCOUNTING ADMIN USERS COMPANY DATA CHANGE PASSWORD	Log in to your account Usemame: esbusec@gmail.com	n			
Service Setup					
Purchase SMS	Register new account?				

Fill in the prepaid plan and your mobile number. The activation code will be sent to your mobile phone number.

	Home	Configuration	Mobile Services	SMS Statistics	Account
Purchase	SMS cre	dits (Prepai	id)		
This applies to pre-pa	id services. Plea	se contact us if you woul	ld like postpaid services.		
Purchase SM	AS credits				
Company:		nications Corporation		_	
Basefee: Amount: (EUR)	EUR 0.099 50			and get s	IOW tarted!
Mobile:					
	This applies to pre-pa Purchase SM Company: Basefee: Amount: (EUR) Mobile: © I do accept the event of abuse, m	This applies to pre-paid services. Plea Purchase SMS credits Company: ZyXEL Commu Basefee: EUR 0.099 Amount: (EUR) 50 Mobile: ☑ I do accept the agreement and event of abuse, my account shall b	This applies to pre-paid services. Please contact us if you would be contact us if you wou wou would	Company: ZyXEL Communications Corporation Basefee: EUR 0.099 Amount: 50 Mobile: Image: Communication of the system statement, and that in the event of abuse, my account shall be closed without any refund given for	This applies to pre-paid services. Please contact us if you would like postpaid services. Purchase SMS credits Company: ZyXEL Communications Corporation Basefee: EUR 0.099 Amount: (EUR) 50 Mobile: Image: Communication of the approximation of the approximat





Enter the activation code to proceed to make payment.

SMS ADMIN		Home	Configuration	Mobile Services	SMS Statistics	Accoun
PURCHASE SMS CREDITS	Purchase	SMS cre	edits (Prepa	id)		
SUB ACCOUNTS	This applies to pre-pa	aid services. Plea	se contact us if you wou	Id like postpaid services.		
ACCOUNTING						
ADMIN USERS	Purchase SI	MS credits				
COMPANY DATA	Company:	ZyXEL Commu	nications Corporation			
CHANGE PASSWORD	Basefee:	EUR 0.02		_	🐂 Buy r	
	Amount: (EUR)	50			and get s	tarted!
Service Setup	Mobile:					
bernee becap			the anti-spam statemen			
	event of abuse, m unused credits.	y account shall b	e closed without any ref	und given for		
Purchase SMS	A code is now se	nt to your mobile.				
	Enter the code:	D3672				

Fill in the credit card information to complete the payment.





Payment is complete.

Products	
1 item SMS credits	50,00 €
Information	
Vendor	Customer
ViaNett AS Varnaveien 7 1522 Moss +47 69 20 69 69 support@vianett.no	ZyXEL Communications Corporation
Payment	
Your payment is now comple	ete. Press the link below to return to the store.
Amount:	50,00 €
Order ID:	1124297
Order ID: Date:	1124297 2013-07-24

Order ID: 1124297

Step 2: After the 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.

Z	YXEL UAG41	.00			
	CONFIGURATION		SMS		
	T¥Quidk Set ⊞ Wireless ⊡ Network	up	General Settings		
Co R	+ Interface + Routing + Zone + DDNS		Enable SMS Default country code for phone r ViaNett Configuration	number:	886 (1-4) digit
	 DDATS NAT VPN 1-1 Mapping HTTP Redirect SMTP Redirect ALG UPnP IP/MAC Binding Layer 2 Isolation IPnP Web Authentication Firewall Billing Printer Manager Free Time SMS 	m	ViaNett Configuration User Name: Password: Retype to Confirm:	esbusec@gmail.com	



Step 3: Configuration > Free Time

 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 the login information to the mobile phone.

Z	YXEL UAG4100		
2	CONFIGURATION	Free Time	
	Ti Quick Setup		
	⊡ Network	General Settings	
	+ Interface	Enable Free Time	
0	+ Routing	Free Time Period:	30 (30-120minutes)
R.	+ Zone + DDNS	Reset Time:	00:00
	+ NAT	Maximum Registration Number Before Reset Time:	1 (1-5)
	 VPN 1-1 Mapping HTTP Redirect 	Delivery Method:	SMS 👻
	 SMTP Redirect ALG UPnP IP/MAC Binding Layer 2 Isolation IPnP Web Authentication Firewall Billing Printer Manager Free Time SMS BWM 	Note: 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.

		Walled Garden	Advertisement				
neral Se	ettings						
Authentic	cation:	None	Web Portal	🔘 User Agreen	nent		
_	nternal Web						
_	External Web	Portal					
	Login URL:						
	Logout URL:			Optional			
	Welcome URI			Optional			
	Session URL:			Optional			
Download	Error URL:	web portal example.		Optional			
Download ceptiona	Error URL:						
Download ceptiona () Add	Error URL: d the external to tal Services	web portal example.					
Ceptiona Ceptiona CoAdd	Error URL: d the external of tal Services Remove	web portal example.					
Ceptiona Ceptiona Add # E 1 Di	Error URL:	web portal example.	10 ∨ items				Displaying 1 - 1 of
Download Ceptiona ② Add # Ex 1 Di 1 Di	Error URL: d the external the all Services Remove exceptional Services DNS Page 1	web portal example.	i0 v items				Displaying 1 - 1 of
Ceptiona Ceptiona Add # Ex 1 Di 4 4 Example Author	Error URL: d the external of all Services Remove exceptional Services DNS Page 1 entication Pe	web potal example.					Displaying 1 - 1 of
Ceptiona Ceptiona Add # Ex 1 Di 1 Di 1 d eb Auther Catalogue	Error URL: d the external d al Services Remove ixceptional Si NS Page 1 entication Pr entication Pr C Edit 1 R	web potal example.	Inactivate 🚚Move	Optional			Displaying 1 - 1 of
Ceptiona Ceptiona Ceptiona Add # Ex 1 Di I DI	Error URL: d the external to all Services Remove Exceptional So NNS Page 1 entication Pr entication Pr Priority	web potal example.	Inactivate Move	Optional	Authentication	Description	Displaying 1 - 1 of
Ceptiona Ceptiona Add # Ex 1 Di 1 Di 1 d eb Auther Catalogue	Error URL: d the external d al Services Remove ixceptional Si NS Page 1 entication Pr entication Pr C Edit 1 R	web potal example.	Inactivate 🚚Move	Optional	Authentication force	Description	Displaying 1 - 1 of



Verification

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

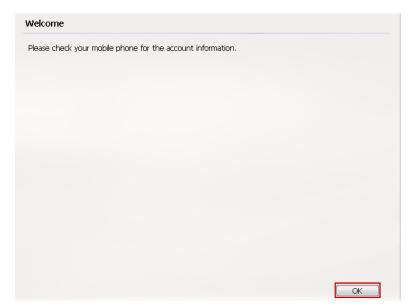
🖉 UAG4100 - Windows Internet Explorer	bill, agent, sin, Mill And Comparish, Mall, Manual Hall.		
http://172.16.0.1/redirect.cgi?arip=0.0.0.0	and the second se	🗕 💀 😽 🗙 🚼 Google	م
× Google	▼ 🛂 搜尋 ▼ 🖓 分享 🚳 ▼ 🔕 翻譯 ▼ 更多設定 ≫		登入 🛙
🗴 🛄 Snagit 🗮 📷			
☆ 我的最要 Ø UAG4100 Ø UAG400 Ø	Å • D • □	🖶 ▼ 網頁(P)▼ 安全性(S)▼ 工具(O)▼ 🕢▼ 🛔	s 👎 🕷 🕼 🛛 🛯
ZyXE	L		
UAG4100	Enter User Name/Password and click to login.		
	User Name: Password:		
	(max. 63 alphanumeric, printable characters and no spaces)		
	Without an account? Cick here to get a free account.		
	Login Reset		
	La la companya de la		
	Note: 1. Turn on Javascript and Cookie setting in your web browser.		
	 Turn off Popup Window Blocking in your web browser. Turn of 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.

		Service Name	Service Time	Charge	Unit
1		Free Time	30 minutes	Free	1 2
2	0	Biling_1_hour	1 hour	€ 1.00	1
3	0	Biling_2_hour	2 hours	€ 2.00	1.
4	0	Biling_3_hour	3 hours	€ 3.00	1.
a	ountry (lode:	896		
	obile Nu	mhor	0912345678		



3. The account and password will be sent to your mobile phone.

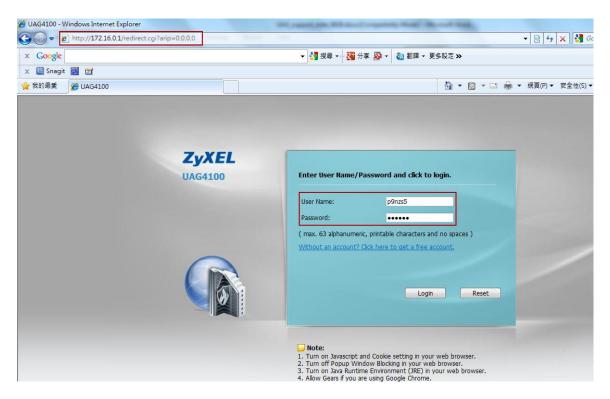


4. Check your account information.

메리中華電信 🗢 5:49 PM	51% 💷
Messages DemoSMS	Edit
Jun 28, 2013, 5:44 PM	
Username:p9nzs5	
Password:0rw3pf (1)SSID:Guest/Mode:none/	
Key:	
 Text Message 	Send



5. Fill-in the account information received on your mobile phone and click "Login".



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 - BWM Controls Trial and Billing Users

In the hotel network hotspot applications, the UAG4100 can support different bandwidth controls by different SSIDs. We can use this design like NXC, SSID mapping to a VLAN. Then VLAN can be mapped to an IP address subnet. In this scenario, we add 2 SSIDs and enable the Free Time function on the device, and also add the Billing profiles on the device. After adding the policy to limit the user bandwidth via BWM function, we can login to the device via a trial-user or billing-user account to check the speed controlled by the UAG4100.



Network Conditions

<u>UAG4100</u>: WAN1: 10.59.3.54 LAN2: 172.17.0.1

Goal to Achieve

UAG4100 can support adding of rules on the device to control different user types by the BWM function for controlling the bandwidth based on a 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".

ZYXEL

www.zyxel.com

CONFLOURATION CONFLOURATION Y Quick Setup SSID List Security List AAC Fiter Configuration Co	ject Reference 🛛 🖵 Console
Image: Constraint of the second se	N IÐ Displaying 1 - 1 of 1

(2) Add the other SSID for Billing users.

Z	YXEL UAG4100		Welcome admin Logout ? Help Z About ? Site	e Map 🗔 Object Reference 🚽 Console 🖾 CL
	Consouranticon	Rado SSID SSID Lat Security List MAC Filer List SSID Summary Profile Name - SSID d defuilt Free 2 "For, Bling "Bling 4 4 Page 1 of 1 > PI Show 50 m tems	Wekcome admini Logout ?Heb 2 About #State Add SSID Profile D X Create new Object+ Profile Name: For_Billing SSID: Billing Billing Security Profile: default W MAC Fittering Profile: default W VLAN ID: I (1-4094) Hodden SSID Enable Inftra-BSS Traffic blocking Local VAP Setting VLAN Setting VLAN Support On Off Outgoing Interface: Ini2	Rap Collect Reference Console CC CL VL441D 1 1 Deploying 1 - 1 of 1
	⊡ System ⊡ Log & Report		Okyony Inchineci	
1721	601/and is fresh as a second and fresh	diau ates #		

(3) Go to Configuration > Object > AP Profile > Radio to Broadcast these two SSIDs via the 2.4 GHz and 5 GHz radios.

7	VEL UAG4100				*Site Map GObject Reference	🖵 Console 🖾 CL
_	YALL CACHING		🕑 Edit Radio Profile default		(? 🗙
17	CONFIGURATION	Radio SSID	🔝 Show Advanced Settings 🔚 Create new	Object •		
	PQ Cuck Setup Diconsing Wireless Web Authendication Firevail Billing Printer Managor Firevail Billing Printer Managor Firevail Billing Printer Managor Billing Printer Managor Billing Billing Printer Managor Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billing Billin	Radio Sumary Add Edd Themos @ Activate @ Date # Status Frolie Name Behavit 2 @ default2 14 4 Page 1 of 1 P P Show 50	General Settings			-2 of 2
			Apply	Reset	 OK Cancel	

ZYXEL

7	YXEL UAG4100			Welcome admin Logout	?Help Z About ₹Site Map	p 🛱 Object Reference 🖵 Console 🖾 (
_	_		Edit Radio Profile default2			? ×
197	CONFIGURATION	Radio SSID	🔝 Show Advanced Settings 🔚 Create nev	v Object•		
	P Quick Setup C Licensell White lass What A Mark Mark What Mark Mark What Mark Mark What Mark Mark What Mark Mark What Mark What Mark Mark What Mark	Radio Summary Catalog Catalog Profee Name - Catalog Catalog Profee Name - Catalog C	General Settings	× ×		OK Cancel
			Apply	Reset		

Task 2: Enable the Free Time function on the device.

Step 1: Go to **Configuration** > **Free time** page to enable the Free time function (you can configure the duration and how many times that user can access the Internet for free).

ZyXEL UAG4100		Wekome admin Logout ?Help Z About +Site Map Cobject Reference Console COL
CONFIGURATION	Free Time	
1 Quick Setup Quick Setup Qui	General Settings Image: Construct of the settings of the account, please go to Billing.	pply Reset





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€

	🖉 Billing Profile		? 🗙
	Settings		
	Enable billing profil	e	1
	Name:	Billing_1_hour	
	Name.	Billing_1_nour	
	Unit:	1	
	Time Period Unit:	hour 💌	
	Price:	1	
			-
			OK Cancel
N/F		Welcon	ne admin Logout 🤗 Help 🛛 About 🌴 Site Map 💷 Object Reference 🖵 Console
XEL UAG4100			
DNFIGURATION	General Billing Profile Discount Pa	ayment Service	
T¥ Quick Setup Licensing	Account Generator Settings		
Wireless	Button A: Biling_1_hour		
Network Web Authentication	Button B: Biling_2_hour V		
Firewall Billing	Button C: Biling_3_hour		
Printer Manager	Preview		
Free Time SMS	Billing Profile		
BWM	🛛 🕼 Add 📝 Edit 🍵 Remove 💡 Activate 🖓 In	nactivate	
Object System	# Status Name	Unit	Price
Log & Report	1 🤪 Billing_1_hour	1 hour	€ 1,00
	2 🥥 Billing_2_hour	2 hour	€ 2,00
	3 💡 Billing_3_hour	3 hour	€ 3,00
			Displaying 1 - 3 of B
	[4 4 Page 1 of 1 ▶ ▶] Show 50	✓ items	onpolying x o or p
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	4 4 Page 1 of 1 ▶ ▶ Show 50	✓ items	oopayrig x oon
	Page <u>1</u> of 1 ▶ Show 50	v items	unpo)/rg 2 0 0
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	[4 4 Page 1] of 1 ▶ ▶ Show[50	v kens	
	[4 4 Page 1 of 1 > > Show 50	v kens	



Step 2:

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

- (1) Ensure that the accounting method type and currency settings are correct
- (2) Add the SSID profile in the general setting.

Z	YXEL UAG4100		Welcome admin <u>Logout</u>	?Help Z About	🕈 Site Map 🛛 🖨 Object Refere	nce 🖵 Console 🖾 (
	CONFIGURATION TV Quick Setup E Licensing Wireless	General Billing Profile Discount Payment Service General Settings Unuesd account will be deleted after the time: 24 Inour Unuesd account will be deleted after the time: 24 Inour Inour Imme be Finish Imme be Finish Imme be Finish Imme be finish User idle timeout: 3 (1-60 minutes) Accumulation Accumulation account will be deleted after the time: 90 day Imme be deleted after the time: Billing User Logon Settings Maximum number per billing account: 1 (1-10) Reach maximum number per billing account: Imme be flow Currency Currency Currency is Imme be flow Imme be flow Imme be flow Number of decreats pieces: 2 Decrimal symbol Imme be flow Imme be flow Too Too 1 1 1 1 Imme be below Imme be below		?Heb ZAbout	₹Ste Nup (©Object Refere	nce 🖓 Console 🖾 (
			Reset			



Task 4: Configuring the Payment service page.

Ensure that the Payment service has already been configured correctly.

Z	YXEL UAG4100		Welcome admin Logout ?Help Z About Yelcome admin Logout ?Help Z About #Site Map Cobject Reference Console CII
1	CONFIGURATION	General Billing Profile Discount Payment Service	
	Y Quick Setup Ucensing Wreless Network Network Network Network Network Pricevall Firewall Printer Manager Fires Time SMS SMS SMS Object System	General Biling Profile Discount Payment Service General Custom Service General Setting Image: Custom Service Payment Provider Selection Account: selera@gmail.com Account: selera@gmail.com Currency: Lidentty Token: xns2Swoft/VOW9JGTm6tyvgtXkQ20-1f5Kdkg0z-Ah5; Payment Gateway: https://www.sandbox.paypal.com/cgi-bin/webscr	
	🕀 Log & Report	Account Delivery Method Delvery Method: On-Screen Account Pelvery Method: Account Pelvery Method: Account Pelvery Method: Account Pelvery Method: Account Pelvery Method Account Pelver	Reset

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

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

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

Z	YXEL UAG4100		0	Add Policy	Welcome admin 1 Logout ? Help Z Ab	out 📲 Site Man 🖾 Object Reference	e 🖵 Console ? >	
	CONFIGURATION	BWM	8	Create new Object▼ Criteria				
		BWM Global Setting		User:	trial-users 👻			
Ö	Wireless Network	Enable BWM		Schedule: Incoming Interface:	none 👻 any 👻			
	 Web Authentication Firewall 	Configuration		Outgoing Interface:	any 👻			
	 Billing Printer Manager 	Add Z Edit 🎬 Remove 💡 Activate 🌚 Inactivate 📾		Source:	any V			
	Free Time SMS	Status Prio Description BWM Type User		Destination: DSCP Code:	any 👻			
	+ BWM ⊞ Object	def shared any III III IIIIIIIIIIIIIIIIIIIIIIIIIIIII		Service Object:	any 👻			
	 Bystem ■ Log & Report 	In a Page 1 of 1 P Pt Show ou when s		DSCP Marking				
				DSCP Marking	Inbound Marking: preserve 👻		=	
					Outbound Marking: preserve			
		1		Bandwidth Shaping				
				Guaranteed Bandwidth	Inbound: 1000 kbps (0 : disabled)	Priority: 7 Maximum: 0 kbps		
					Maximize Bandwidth Usage	Maximum: 0 Kops		
					Outbound: 1000 kbps (0 : disabled)	Priority: 7 Maximum: 0 kbps	-	
				l	Maximize Bandwidin Osage	Maximum. U Kapa		
				Polatod Sotting		OK (Cancel	





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

7	VXEL UAG4100		O Add Policy	Welcome admin Logout ?Help Z Ab	out 🛊 Site Man 🔤 Object Reference 🖵 Console 🖾 CLI ? 🗙
	CONFIGURATION	BWM	Crieate new Object+		
	Y Quick Setup Ucensing Wireless Network Web Authentication Firewall Billing Printer Manager	EVMI Global Setting Enable BVMI Configuration Status Prio Description IWM Type User	User: Schedule: Incoming Interface: Outgoing Interface: Source: Destination:	biling-users v none v any v any v any v any v	-
	Free Time SNAS SNAS Opject System Log & Report	Image: State of the	DSCP Code: Service Object: DSCP Marking DSCP Marking	Inbound Marking: preserve v Outbound Marking: v	
			Bandwidth Shaping	Inbound: 2000 kbps (0 ; disabled)	
			Gualanteeu Banuwidth	Inbound: 2000 kbps (0 ; disabled) Maximize Bandwidth Usage	Priority: 1 Maximum: 0 kbps
				Outbound: 2000 kbps (0 : disabled)	Priority: 1 Maximum: 0 kbps
			Bolated Sotting Apply	Reset	OK Cancel

(3) Enable BWM function.

Z	YXEL UAG4100							weich	ome admin	Loquut Ph	ap 2 Abo	ut T oter	lap 🖙Object Refe	
	CONFIGURATION	BWM												
	T¥ Quick Setup Licensing Wireless Network Web Authentication Firewall		bal Setting able BWM ation											
	 Billing Printer Manager 	🔘 Add	🕽 📝 Edit 🍵 Re	emove 🢡 Activate	@ Inactivate	Move 📢								
	Printer Manager Free Time	Status	Prio Desc	cription BWM Type	User	Schedule	Incoming Int	Outgoing Int	Source	Destination	DSCP	Service	BWM In/Pri/Out	DSCP Marking
	• SMS	9	1	shared	billing-us	none	any	any	any	any	any	Obj:any	2000/1/2000/1	preserve/pr
	BWM	9	2	shared	trial-users	none	any	any	any	any	any	Obj:any	1000/7/1000/7	preserve/pr
		9	3	per-user	any	none	Ian2	SYSTEM	any	any	any	Obj:any	512/4/512/4	preserve/pr
			def	shared	any	none	any	any	any	any	any	Obj:any	no/7/no/7	preserve/pr
			Page 1 of		v 50 v iter									Displaying 1 - 4 of +
								Apply	Reset					

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 to authentication with the device.

ZYXEL

110 04400					Welcome admin Logout	?Help Z About	Site Map	Object Reference	🖵 Console
YXEL UAG4100									
CONFIGURATION	Web Authentication	Walled Garden	Advertisement						
📲 Quick Setup	Login URL:								
Licensing	Logout URL:			Optional					
Wireless Network	Welcome UR			Optional					
Web Authentication	Session URL:			Optional					
 Firewall Billing 	Error URL:			Optional					
 Printer Manager Free Time 	Download the externa	I web portal example							
→ SMS → BWM ⊕ Object	Exceptional Services								
⊞ System	🔕 Add 🍵 Remove								
Log & Report	# Exceptional Set	wices 🔺							
	1 DNS								
	4 4 Page 1 0	of 1 🕨 🕅 Show	50 👻 items					Display	ing 1 - 1 of 1
	Web Authentication Pol	icy Summary							
	🗿 Add 📝 Edit. 🃋 R	emove 💡 Activate	🖗 Inactivate 📣 Move						
	Status Priority	Source	Destination	Schedule	Authentication	Descrip	tion		
	<mark>@</mark> 1	LAN2_SUBNET	any	none	force				
	Default	any	any	none	unnecessary	n/a			
			50 v items						ing 1 - 2 of 2

Task 7: Login to the device via the trial user.

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

ZyXEL	
AG4100	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.
	 Turn off Popup Window Blocking in your web browser. Turn on Java Runtime Environment (JRE) in your web browser.

Step 2: After clicking on 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 on the "OK" button.

ZYXEL

#		Service Name	Service Time	Charge	Unit
1	۲	Free Time	30 minutes	Free	1
2	O	Billing_1_hour	1 hour	€ 1.00	1 💌
3	\bigcirc	Billing_2_hour	2 hours	€ 2.00	1 💌
4	O	Billing_3_hour	3 hours	€ 3.00	1 🗸 🗸



Step 3: Then device will display a pop-up window with the user name and password. Or you can click on the "Login Now" button to login to device directly.

Welcome	
You may now use the internet.	
IMPORTANT! MAKE a note for your case-sensitive username as later. This will be your only opportunity to do so.	nd password for logging
This is your account information, please keep this for your inte	rnet service.
Your username is xot6z9	
Your password is azmmam	
Your time period is 30 minutes	
	Login Now

Step 4: Visit the website "<u>http://www.speedtest.net/</u>" to test the speed. The test result is around 1 Mbps, which is the same as our setup.





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

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

ZyXEL	
AG4100	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.
	Wenode an account click here to get an account by online portients
	Login Reset
	😡 Note:
	 Turn on Javascript and Cookie setting in your web browser. Turn off Popup Window Blocking in your web browser. Turn of Lang Durbing Environment (JDE) in your web browser.
	 Turn on Java Runtime Environment (JRE) in your web browser. Allow Gears if you are using Google Chrome.

Step 2: Select the 1-hour profile to test this.

1				Charge	Unit
-	0	Free Time	30 minutes	Free	1 ^
2	۲	Billing_1_hour	1 hour	€1.00	1 💌
3	\bigcirc	Billing_2_hour	2 hours	€ 2.00	1 💌
4	\bigcirc	Billing_3_hour	3 hours	€ 3.00	1 🗸 🗸



Step 3: Then device will display the PayPal page in pop-up window.

Please enter the correct user name and password in the fields, and then click on the "Log in" button on the browser.

HongSong Chen's Test Store

Your order	r summary	Choose a way to pay			
Descriptions	Amount	 Pay with my PayPal account 	PayPal" (
60 minutes Item price: €1.00	€1.00	Log in to your account to complete the purchase			
Quantity: 1		Email buyer-a@gmail.com			
Item total	€1.00	PayPal password			
	Total €1.00 EUR	······			
		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.			
		Cancer and return to Hong Song Cherrs rest Store.			

PayPal will show you the balance. Then you can click on the "Pay Now" button.

Your order	r summary	Review your information
Descriptions	Amount	PayPal
60 minutes Item price: €1.00 Quantity: 1	€1.00	Pay Now Shipping address Z Change
ltem total	€1.00 Total €1.00 EUR	HongSong Chen 1 Main St San Jose, CA 95131 United States Note to seller: <u>Add</u>
		Payment methods & <u>Change</u> PayPal Balance \$1.40 USE PayPal Conversion Rate as of Jun 24, 2013: 1 U.S. Dollar = 0.714485 Euros
		PayPal gift card, certificate, reward, or other discount <u>Redeem</u> View <u>PayPal policies</u> 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 on the "Pay Now" button, PayPal will redirected the user name and password to you. You can then click on the "Login now" button to directly access the Internet.

Welcome	
You may now use the internet.	
IMPORTANT! MAKE a note for your case-sensitive username and password for logging later. This will be your only opportunity to do so.	
This is your account information, please keep this for your internet service.	
Your username is ssu42p Your password is rbk54z Your time period is Oday,01hour	
Please activate your account before 25/06/2013 10:19	
	Login Now

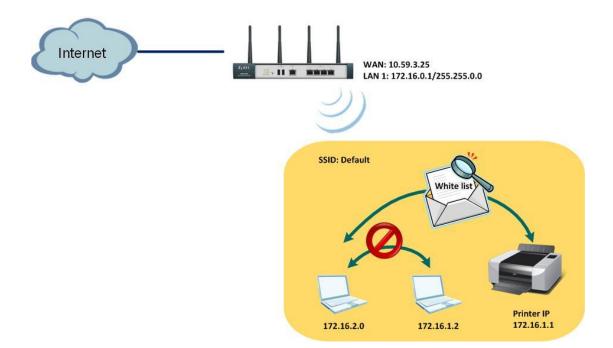
Step 5: Visit the website "<u>http://www.speedtest.net/</u>" to test the Speed. The test result is around 2 Mbps, which is the same as our setup.





Scenario 4 - Layer 2 Isolation and White List

In the hotel network hotspot applications, if you want to easily control and manage that client's ability to connect with each other, you can enable the Layer2 Isolation function to block specific interfaces from communicating with each other. In this scenario, we have set two client laptops, and an online printer for client use, after enabling the Layer2 Isolation function. We can prevent the clients from accessing each other's laptops. And by using a White list, we can also manage the clients as well as access the online printer.



Network Conditions

<u>UAG4100</u>: 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) Enabling the Layer2 Isolation function, it becomes easy to control, manage, and block specific interfaces from connecting with each other.

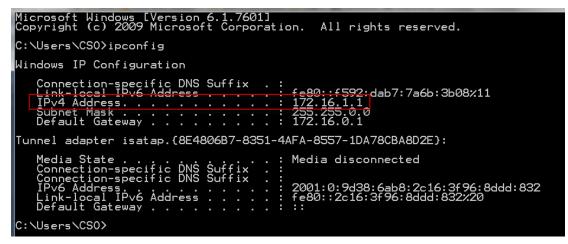


2) Using a White list can restrict or allow clients from accessing specific servers.

Task 1. Enable the "Layer2 Isolation" function to prevent internal users from connecting with each other.

Step 1: Connect the Printer on the UAG4100 Lan1, and ensure that the client's laptop is also in the same Lan1 subnet.

Printer IP address:



Laptop IP address of client 2:

Connection-speci	if i	.C	DN	S	Su	ιff	i>	c	:	
IP Address									:	172.16.2.0
Subnet Mask									:	255.255.0.0
Default Gateway									:	172.16.0.1



Step 2: Since the Layer2 Isolation function only takes effect if the firewall is enabled, therefore, you have to enable firewall first.

Configuration >	> Network >	Firewall >	Enable Firewall
Configuration /			

YXEL UAG4100							Welcome admin	Loqout ?Help	Z About 🕈 Site	Map Gobject Reference	e 🖵 Console
CONFIGURATION	Firewall	Session Co	ntrol								
Y Quick Setup Licensing Wireless Network Web Authentication Firewall Billing Firiter Manager	Global Sel Global Sel Enal IPv4 Rule Allov	ble Firewall	I Route	Y To Zon	:: all	~	Refresh				
 Free Time SMS 			emove 🥥 Activate	10 2011			Kenesn				
+ BWM ⊕ Object		Priority -	From	To	Schedule	User	IPv4 Source	IPv4 Destination	Service	Access Log	
System	Q	1	= LAN1	■LAN1	none	any	any	any	any	allow no	
Log & Report	<u></u>	2	= LAN1	= WAN	none	any	any	any	any	allow no	
	9	3	= LAN1	Device	none	any	any	any	any	allow no	
	Q	4	■ LAN2	= WAN	none	any	any	any	any	allow no	
	9	5	■ LAN2	Device	none	any	any	any	Default_Allo	allow no	
	9	6	n WAN	Device	none	any	any	any	Default_Allo	allow no	
		Default	any	any	none	any	any	any	any	deny log	
	14 4	Page 1 0	if 1 🕨 🕅 Sho	w 50 👻 items						Displa	aying 1 - 7 of

Step 3: Configuration > Network > Layer 2 Isolation

- (1) Enable Layer 2 Isolation.
- (2) Move the lan1 interface to the member list to prevent all lan1 internal users from connecting to each other.

Z	YXEL UAG4100)	Welcome admin <u>Loqout</u>	?Help	Z About	🕈 Site Map
1	CONFIGURATION	General White List				
	TY Quick Setup □ Licensing ○ Wireless ○ Network □ Interface □ Routing □ Zone □ DDNS □ DNS ○ Network □ DDNS □ MAT ○ VPN 1-1 Mapping □ HTTP Redirect □ SMTP Redirect □ ALG □ IPMAC Binding □ IPMAC Binding □ Free Wall □ Billing □ Printer Manager □ SMS ■ BWM □ Object □ User/Group	General Setting				



Verification

Client2's laptop cannot connect to the 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.
Ping statistics for 172.16.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = Oms, Maximum = Oms, Average = Oms
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.
Ping statistics for 172.16.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = Oms, Maximum = Oms, Average = Oms
```



Task 2. Use the White List function to manage the client's side, as well as the ability to access the online printer.

Step 1: Using IP/MAC Binding to make sure the Printer IP is correct host.

Configuration > Network > IP/MAC Binding > Ian1

- (1) Enable IP/MAC Binding.
- (2) Insert the Printer IP binding with the correct MAC address.

Z	YXEL UAG4100					Welcome admin <u>Logout</u> ?Help Z About ‡ Site Map GObject Re
e.	CONFIGURATION	Summary	Exempt List		P	Z Edit IP/MAC Binding
						IP/MAC Binding Settings Interface Name: Ian1(172.16.0.1/255.255.0.0) Image: Enable IP/MAC Binding Image: Enable Logs for IP/MAC Binding Violation
	Zone DONS NAT VPN 1-1 Mapping HTTP Redirect SMTP Redirect ALC UPnP UPnP Layer 2 Isolation i PnP Web Authentication Firewall Billing Printer Manager	2 @ 3 @ 14 4 1	W	an2 van1	v	Static DHCP Bindings
	 Free Time Free Time SMS BVMM Object System Log & Report 				L	OK Cancel

Stepv2: 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 allow the client's laptop to connect to the Printer.

Z	YXEL UAG4100					Welcom	ie admin <u>Loqout</u>	?Help Z Abou	ıt 🕈 Site Map
	CONFIGURATION	General	White List						
	Y¥ Quick Setup □ Licensing □ Wreless ■ Network ■ Interface ■ Routing ■ Zone ■ DDNS ■ NAT ■ VPN 1-1 Mapping ■ HTTP Redirect ■ SMTP Redirect ■ ALG ■ UPAP ■ IPANAC Binding ■ System ■ Log & Report	White List	ble White List t Summary Edit 1 Rem Status	ove Q Activate Q Inactivate IP Address 17216.1.1 P PI Show 50 v Ite	 Edit White List Rule Settings Enable Host IP Address: Description: 	172.16.1.1	(Optional)	2 X	



Verification

Client2's laptop can connect to the online Printer (172.16.1.1) that is in the White List, but still cannot connect to the client1's laptop (172.16.1.2).

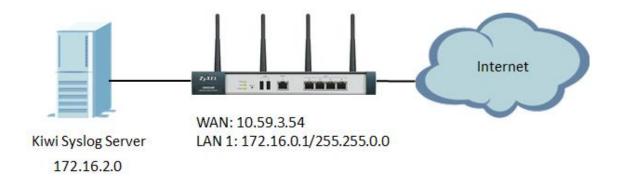
```
C:\Documents and Settings\user\ping 172.16.1.1
Pinging 172.16.1.1 with 32 bytes of data:
Reply from 172.16.1.1: bytes=32 time=5ms TTL=127
Reply from 172.16.1.1: bytes=32 time=7ms TTL=127
Reply from 172.16.1.1: bytes=32 time=8ms TTL=127
Reply from 172.16.1.1: bytes=32 time=11ms TTL=127
Ping statistics 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.
Ping statistics for 172.16.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = Oms, Maximum = Oms, Average = Oms
```



Scenario 5 – Send the System Log to a Remote Syslog Server

and USB Device

For management purposes, administrators can easily monitor events occurring on the UAG4100 by reading the syslog. The syslog is very useful for administrators; especially, when the administrator receives complaints from the users regarding a slow or unstable Internet connection. The administrator can use these reports as a troubleshooting reference. In this scenario, we demonstrate how the UAG4100 exports system logs to a Kiwi syslog server and a USB device connected to the UAG4100.





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 as well as a USB storage device.

Remote Syslog Server

Task . 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 the PC to LAN of the UAG4100. This is the website for the Kiwi syslog server:

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





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

7	YXEL UAG4100	•				Welcome admin <u>Lo</u>
	CONFIGURATION	Log Se	ttings			
	₩Quick Setup E Licensing Wireless		ettings Edit	ate 🧑 Inactivate		
b	 	#	Status	Name	Log Format	Summary
	 Firewall Billing Printer Manager Free Time SMS 	1	Ø	System Log	Internal	E-mail Server 1 Mail Server: Mail Subject: Send From: Send Jog to: Send Alert to: Schedule: Send log when full.
	BWM Object System Log & Report Email Daily Report Log Settings	2	G	System Log	Internal	E-mail Server 2 Mail Server: Mail Subject: Send From: Send Log to: Send Alert to: Schedule: Send log when full.
		3	@	USB Storage	Internal	USB Status: Ready
		4	9	Remote Server 1	VRPT/Syslog	Server Address: Log Facility: Local 1
		5	g	Remote Server 2	VRPT/Syslog	Server Address: Log Facility: Local 1
		6	g	Remote Server 3	VRPT/Syslog	Server Address: Log Facility: Local 1
						Log Category Settings Apply

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 the Kiwi syslog server.

1	Active		1	
	Log Format:	VRPT/Syslog 💙		
	Server Address:	172.16.2.0	(Server Name or IP Add	iress)
	Log Facility:	Local 1		
ctiv	ve Log (AC)			
	Selection -			
Γ	disable all logs			Selection
	enable normal logs	1	6	
	enable normal logs and debug logs		0	•
2	Advertisement	1	0	•
3	Auth. Policy		0	•
4	Authentication Server		0	•
5	Built-in Service		0	•
6	BWM		0	•
7	CAPWAP		0	•
8	Connectivity Check			•



Verification

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

🦂 🛃 🔜	1 🖾 🔅	Display 00 (D	efault) 🔻	12 Days left in evaluation 📒 Buy Now
Date	Time	Priority	Hostname	Message
07-01-2013	14:01:15	Local1.Notice	172.16.0.1	Jul 1 14:01:15 2013 uag4100 src="10.59.3.40:137" dst="10.59.3.255:137" msg="Match default rule, DROP" note="ACCESS BLOCK" user="admin" devID="b0b2dc6l47ae" cat="Firewall" class="Access Control" ob="0" ob_mac="00000000000" dir="ANY:ANY"
07-01-2013	14:01:14	Local1.Notice	172.16.0.1	Jul 1 14:01:15 2013 uag4100 src="10.59.3.40:137" dst="10.59.3.255:137" msg="Match default rule, DROP" note="ACCESS BLOCK" user="admin" devID="b0b2dc6l47ae" cat="Firewall" class="Access Control" ob="0" ob_mac="00000000000" dir="ANY:ANY"
07-01-2013	14:01:14	Local1.Notice	172.16.0.1	Jul 1 14:01:14 2013 uag4100 src="10.59.3.40:137" dst="10.59.3.255:137" msg="Match default rule, DROP" note="ACCESS BLOCK" user="admin" devID="b0b2dc6l47ae" cat="Firewall" class="Access Control" ob="0" ob_mac="00000000000" dir="ANY:ANY"
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=lan2.status=Down, TxPkts=5727,RxPkts=4593.coli=0,TxB/s=0,RxB/s=0" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dc6f47ae" cat="INTERFACE
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=lanl,status=Up,IXPkts=477491,RAPkts=216775,Colli=0,TxB/s=752,RxB/s=0" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dc6f47ae" cat="INTERFACE
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 114:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=wan1.status=1000M/Full.TxPkts=9339,RxPkts=467209,Colli.=0,TxB/s=0,RxB/s= 274" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dc6f47ae"
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=Port5.status=Down_TxPkts=0,RxPkts=0.Colli=,0,Tx8/s=0,Rx8/s=0,UpTime=00:00: 00" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dc6i47ae"
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=Port4.status=Down_TxPkts=28.RxPkts=594,Colli.=0,TxB/s=0,RxB/s=0,UpTime=00 :00:00" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dcbf47ae"
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=Port3.status=Down_TxPkts=7797.RxPkts=7813.C0lli.=0_TxB/s=0_RxB/s=0_UpTime= =00:00:00" note="INTERFACE STATISTICS" user="unknown" devID="b0b2dc6f47ae"
07-01-2013	14:01:13	Local1.Notice	172.16.0.1	Jul 1 14:01:13 2013 uag4100 src="0.0.0.0:0" dst="0.0.0.0:0" msg="name=Port2.status=1000M/Full.TxPkts=471846,RxPkts=238275,Colli=0,Tx8/s=752,Rx8 /s_01451-0.0:5529_aststatus=1000M/Full.TxPkts=471846,RxPkts=238275,Colli=0,Tx8/s=752,Rx8

 Go to File > Setup and click "Log to file" to edit the path and file name of the 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.

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	Action: Log to file		• Juy	Now
Rules R	Path and file name of log file: C:\Program Files\Syslogd\Lc Example of actual path and fi C\Program Files\Syslogd\Lc Log file format: Comma Separated Values U Log File Rotation Enable Log File Rotation Total number of log files: Maximum log file size:	ogs\%DateISO ile name: ogs\2013-07-01 TC yyyy-mm-dd (CSV)	valu Date Time Priority Input Source Host IP Hostname Message Text Custom fields Global Script fields Slobal Script fields	•
Max message count Disk space monitor Message queue monitor Inputs UDP TCP	Test Setup Test	Help OK	Cancel Apply Time	B/s= D:00: e=00 •

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

) - I	illli ▶ Z	yXEL (C:) 🔸 Program Files 🔸 Syslogd 🖡 L	Logs 👻 😽	授尋 Logs	
組合管理 🔻 加	1人至煤	豊櫃 ▼ 共用對象 ▼ 新増資料夾			III 🔻 📶 🌘
☆ 我的最愛	-	名稱	修改日期	類型	大小
🚺 下載		2013-07-01	2013/07/01下午	檔案	3,694 KB

USB Device

Task . Store the system log on a USB device.

Step 1: Plug-in an external USB storage device and activate the USB storage service to store the system log. USB storage devices with FAT16, FAT32, EXT2, or EXT3 file systems are supported for connection to the USB port of the UAG4100. 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.			
ZyXEL UAG410	0		
MONITOR	Storage Information		
System Status	Information		
Port Statistics	Device Description:	USB 2.0 USB Flash Drive	
Interface Status Traffic Statistics	Usage:	3.5GB /3.8GB (92.8 %)	
+ Session Monitor	File System:	FAT32	
DDNS Status IP/MAC Binding	Speed:	USB 2.0 480Mbps	
+ Login Users	Status:	Ready	Remove Now
UPnP Port Status USB Storage Dynamic Guest	Detail:	none	
Wireless			
Printer Status			
 → VPN 1-1 Mapping → Log 			
LUg			



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

Z	XEL UAG410	00				Welcome admin				
1	CONFIGURATION	Log	g Settings							
	🏋 Quick Setup									
	+ User/Group	Log	g Settings							
		📝 Edit 💡 Activate 🔞 Inactivate								
(Co	+ Address									
	+ Service		# Status	Name	Log Format	Summary				
	+ Schedule	1	1 😨	System Log	Internal	E-mail Server 1				
	+ AAA Server					Mail Server: Mail Subject:				
	+ Auth. Method					Send From:				
	+ Certificate					Send Log to: Send Alert to:				
	+ ISP Account					Send Alert to: Schedule: Send log when full.				
	⊡ System	2	2 @	System Log	Internal	F-mail Server 2				
	+ Host Name	ľ í	- W	System Log	internal	Mail Server:				
	+ USB Storage	4				Mail Subject:				
	+ Date/Time					Send From: Send Log to:				
	+ Console Speed					Send Alert to:				
	+ DNS	U - E				Schedule: Send log when full.				
	+ www	3	3 💡	USB Storage	Internal	USB Status: Ready				
	+ SSH	4	4 🤬	Remote Server 1	VRPT/Syslog	Server Address: 172.16.2.0				
			9			Log Facility: Local 1				
	+ FTP	5	5 @	Remote Server 2	VRPT/Syslog	Server Address:				
	+ SNMP					Log Facility: Local 1				
	+ Language	e	6 😡	Remote Server 3	VRPT/Syslog	Server Address:				
	 Log & Report 					Log Facility: Local 1				
	+ Email Daily Report									
	+ Log Settings					Log Category Settings Apply				
	and a country of					Log courge, / course / /////				

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 the USB device.

dit L	og on USB Storage Setting	2
	torage Duplicate logs to USB storage (if ready	6
og Ke	eep duration	
V E	Enable log keep duration	
	Keep duration: 365	(1-365 days)
ctive		
_	e Log	
p	Selection -	
	disable all logs	Selection
	enable normal logs	
	enable normal logs and debug logs	© • ©
2	Advertisement	 © • ©
3	Auth. Policy	© • ©
4	Authentication Server	0 0 0
5	Built-in Service	© • •
6	BWM	© • •
7	CAPWAP	© • •
8	Connectivity Check	
		OK Cancel



Verification

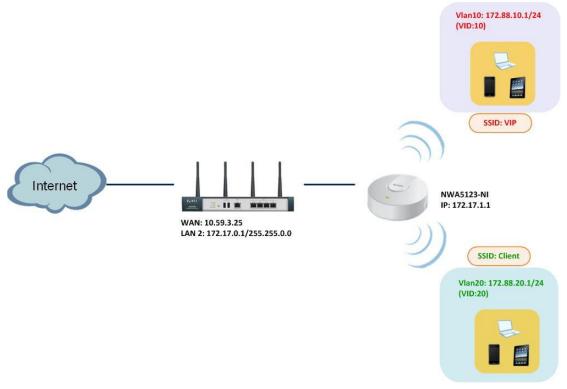
Go to **Maintenance** > **Diagnostics** > System Log and click "Download" to view the log.

YXEL UAG410	0				Welcome admin <u>Logout</u> ?
MAINTENANCE	Diagnostics Packet Cap	ture Core Dump	System Log		
File Manager Diagnostics Packet Flow Explore	System Log Archives in Diagonal System Log Archives in Diagonal System Control Sy	_			
+ Reboot	# File Name			Size	Last Modified
+ Shutdown	1 2013-07-01.log			833811	2013-07-01 13:54:29
	A Page 1 of	1 > > Show 50	✓ items		



Scenario 6 – Manage Multiple APs using an AP Profile

Since there are many places with large scopes that need to allow users to connect to an SSID to access the Internet, as well as distant locations other that need to use an AP profile to manage and control multiple APs with multiple SSIDs. In this scenario, we use the UAG4100 to control and manage the AP of NWA5123-NI that connects to the UAG4100 LAN2. Since we use different subnets with two SSIDs, we have set up two SSIDs in different VLANs. By using the AP profile function, we can control and manage the AP for provide multiple SSIDs to access the Internet.



Network Conditions

<u>UAG4100</u>: WAN: 10.59.3.25 LAN2: 172.17.0.1/255.255.0.0 NWA5123-NI IP: 172.17.1.1 Vlan10 IP: 172.88.10.1/24 Vlan20 IP: 172.88.20.1/24

Goal to Achieve

Use the AP profile function to manage and control multiple APs with multiple SSIDs in many places with large areas.



Task 1. Configure the VLAN interface to allow two SSIDs that can belong to different VLANs.

CONFIGURATION	Port Role Ethe	rnet PPP 🚺	/LAN Bridge Trunk			
TY Quick Setup	Configuration					
 Wireless Controller 	🔾 Add 📝 Edit	👕 Remove 💡 Acti	vate 💡 Inactivate 🖬 Create Vir	tual Interface 🔚 Object Reference		
 AP Management 	# Status	Name 🔺	Port/VID	IP Address	Mask	
Network	1 💡	vlan10	lan2/10	static 172.88.10.1	255.255.255.0	
Interface	2 💡	vlan20	lan2/20	static 172.88.20.1	255.255.255.0	
 Routing Zone 	4 4 Page 1	of 1 > >	Show 50 🗸 items		Disc	laying 1 - 2
DDNS						
 NAT 						
 VPN 1-1 Mapping 						
 VPN 1-1 Mapping HTTP Redirect 						
 VPN 1-1 Mapping HTTP Redirect SMTP Redirect 						
VPN 1-1 Mapping HTTP Redirect SMTP Redirect ALG						
VPN 1-1 Mapping HTTP Redirect SMTP Redirect	8					

Step 1: Configuration > Network > Interface > VLAN

(1) Add an internal VLAN based on the LAN 2 port, and set the VLAN ID: 10.

Edit VLAN met PPP VL		?
Hide Advanced Settings		
General Settings		ſ
Enable Interface		
Interface Properties		
Interface Type:	internal 🗸 🖌	
Interface Name:	vlan10	
Zone:	LAN2 💙 🗓	
Base Port:	lan2 🗸	
VLAN ID:	10 (1-4094)	
Description:	(Opti	onal)
IP Address Assignment		
IP Address:	172.88.10.1	
Subnet Mask:	255.255.255.0	
Interface Parameters		
Interface Parameters Egress Bandwidth:	1048576 Kbps	

(2) Set the VLAN interface IP address as 172.88.10.1/24.



(3) Set the DHCP server with the IP Pool Start address from 172.88.10.2.

Bdit VLAN net PPP VLAN		? 🗙							
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 Dr. Edit 🗯 Demous	=							
	◎ Add Z Edit 🍟 Remove								
	# Name Code Type Value								
	I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I </td <td></td>								
Enable IP/MAC Binding									
Enable Logs for IP/MAC Binding Viola	ation								
Static DHCP Table	💿 Add 🔜 Edit. 🍵 Remove	-							
	ОК С	Cancel							

Step 2: Configuration > Network > Interface > VLAN

- (1) Add an internal VLAN based on the LAN 2 port, and set VLAN ID: 20.
- (2) Set the VLAN interface IP address as 172.88.20.1/24.

Z Edit VLAN		? 🗙
Hide Advanced Settings		
General Settings		A
Enable Interface		
Interface Properties		
Interface Type:	internal 💌 🚹	=
Interface Name:	vlan20	
Zone:	LAN2	
Base Port:	lan2	
VLAN ID:	20 (1-4094)	
	20 (1101)	
Description:	(Optional)
-)
Description:)
Description: IP Address Assignment	(Optional)
Description: IP Address Assignment IP Address:	(Optional)
Description: IP Address Assignment IP Address: Subnet Mask:	(Optional)
Description: IP Address Assignment IP Address: Subnet Mask: Interface Parameters	(Optional 172.88.20.1 255.255.255.0)



(3) Set the DHCP server with the IP Pool Start address from 17	72.88.20.2.
----------------------------------------------------------------	-------------

Bedit VLAN net PPP 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		=
Extended Options	🛇 Add 🖉 Edit: 🍵 Remove	
	# Name Code Type Value	
	II of 1 I II Show 50 vitems No data to display	
Enable IP/MAC Binding		
Enable Logs for IP/MAC Binding Viola	ation	
Static DHCP Table	Add === Edit = Pamova	-
	OK Ca	ncel

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

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

Z	YXEL UAG410						Welcome admin <u>Loqout</u>	PHelp Z About +Site Map?	Gobject Reference 🖵 Console 🖾
	CONFIGURATION	E	Radio	SSID					
	📲 Quick Setu	<mark>م</mark> ا	SSID	List Security List	MAC Filter List				
-	+ DDNS + NAT	1							
0	+ VPN 1-1 Mapping	1.	S SID S	ummary					
	 HTTP Redirect 		O A	dd 📝 Edit 🍵 Remove 🔚 C	bject Reference				
R,	 SMTP Redirect 		#	Profile Name 🔺	SSID	Security Profile	QoS	MAC Filtering Profile	VLAN ID
	+ ALG + UPnP		1	default	Guest	default	WMM	disable	1
	+ UPNP + IP/MAC Binding		2	for_VIP	VIP	default	WMM	disable	10
	+ Layer 2 Isolation		3	for_client	Client	default	WMM	disable	20
	+ IPnP		14	4 Page 1 of 1 ▶ ▶	Show 50 🗸 items				Displaying 1 - 3 of 3
	 Web Authentication 								
	 Firewall Billing 								
	 Printer Manager 								
	Free Time								
	- SMS								
	+ BWM								
	User/Group AP Profile	L							
	+ Address								
	Service Schedule								
	AAA Server								
	Auth. Method								

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

Radio SSID			
SSID List Security List	Edit SSID Profile for_VIP		? 🗙
	🔚 Create new Object 🕶		
SSID Summary	Profile Name: for	1/70	
🔘 Add 📝 Edit 🍵 Remove 📷	SSID: VIP	VIP	
# Profile Name 🔺			MAC Filtering Profile
1 default		iault 💌	disable
2 for_VIP		able 💌	disable
3 for_client	QoS: WM		disable
< Page 1 of 1 ▶ ▶	VLAN ID: 10	(1~4094)	
	Hidden SSID		
	Enable Intra-BSS Traffic blo	cking	
	Local VAP Setting		
	la come de	n Off	-
	VLAN Support:	n On	
		OK Can	cel

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 as "On"

Radio SSID				_
SSID List Security List	Edit SSID Profile for_clie	ent	? 🗙	
	🛅 Create new Object 🗸			
SSID Summary				
💿 Add 🏹 Edit 🍟 Remove 📻 🤇	Profile Name:	for_client		
# Profile Name .	SSID:	Client	1	MAC Filtering Profile
1 default	Security Profile:	default	*	disable
2 for_VIP	MAC Filtering Profile:	disable	~	disable
3 for_client	QoS:	WMM	•	disable
4 4 Page 1 of 1 ▶ ▶	VLAN ID:		(1~4094)	
	Hidden SSID	20	()	
	Enable Intra-BSS Traf	TIC DIOCKING		
	Local VAP Setting			
	VLAN Support:			
	VLAN Support.	On Off		
			OK Cancel	



Step 3: Configuration > Object > AP Profile > Ratio > you can select default 2.4G or default 2.5G by device ratio.

Z	ZyXEL UAG4100			Welcome admin	<u>Loqout</u> ?Help ZA	bout 💠 Site Map	CObject Reference	🖵 Console 🛛
ø	CONFIGURATION	Radio SSID						
	۲۲ Quick Setup • DDNS • NAT	Radio Summary	Remove 🥥 Activate 🖗 Inactivate 🔚 Obj	ect Reference				
	• VPN 1-1 Mapping • HTTP Redirect • SMTP Redirect	# Status	Profile Name -	Frequency Band	Ch	annel ID		
	+ ALG + UPnP	1 9 2 9	default2	2.46 5G	36			
	PAMAC Binding Layer 2 Isolation Printer Washing Web Authentication Frewall Billing Printer Manager Free Time SNS BWM Object UserGroup Address SerVce Schedule AAA Server	4 4 Page 1	of 1 🕨 🕅 Show <u>50 </u>				Display	ing 1 - 2 of 2

- (1) Set SSID Profile with "for_VIP" which was configured as the AP profile.
- (2) Set SSID Profile with "for_client" which was configured as AP profile.

z	YXEL UAG4100				?Help ZAbout ŧSi
10	CONFIGURATION	Radio	SSID		
	🎁 Quick Setup		🖉 Edit Radio Profile defau		? ×
_	+ DDNS	Radio Si	Show Advanced Settings	🔚 Create new Object+	
Ö	 NAT VPN 1-1 Mapping 	🔾 Ac	Profile Name:	default	^
	HTTP Redirect SMTP Redirect	#	802.11 Band:	2.4G 👻	
	+ ALG	2	Mode:	b/g/n 👻	
	+ UPnP + IP/MAC Binding	14 4	Channel:	6	
	 Layer 2 Isolation IPnP 		MBSSID Settings		
	 Web Authentication Firewall 		🛃 Edit		
	 Billing 		# SSID Profile		
	 Printer Manager 	4	1 for_VIP		E
	+ Free Time		2 for_client		
	+ SMS + BWM		3 disable		
	⊡ Object ⊑		4 disable		
	+ User/Group		5 disable		
	AP Profile		6 disable		
	Address		7 disable		
	Service Schedule		8 disable		
	+ AAA Server				-
	Auth. Method Certificate				OK Cancel



Verification

- Connect the NWA5123-NI AP directly under the UAG4100 Lan2 and check Configuration > Wireless > AP Management.
 - (1) Ensure that the UAG4100 can manage and control the NWA5123-NI.
 - (2) Ensure that the the NWA5123-NI AP has got the IP address 172.17.1.1 under LAN 2.

Z	YXEL UAG4100					Welcome admin <u>Logout</u>	?Help ZAbout	🕈 Site Map 🕞 🖓	bject Reference 🖵 Console 🛛
197	CONFIGURATION	Mgnt. AP List							
	₩ Licensing	Mgnt. AP List	iot						
Q	Controller AP Management	# IP Address	MAC Address	Model	R1 Mode / Profile	R2 Mode / Profile	Mgnt, VLAN I	Mgnt. VLAN I	Description .
R	Network	1 172.17.1.1	B0:B2:DC:6F:12:43	NWA5123-NI	AP / default	AP / default2	1	1	AP-B0B2DC6F1243
	+ Interface	2 127.0.0.1	B0:B2:DC:6F:46:50	UAG4100	AP / default	AP / default2	1	n/a	Local-AP
	 Routing tone 	< < < < < < < < < < < < <	▶ Show 50 👻 items						Displaying 1 - 2 of 2
	DONG DONG NAT NAT NPN1 -1 Mapping HTTP Redired Markedred ALG UPAP IPAMAC Binding Layer 2 Isolation ImpP Web Authentication Firewall Billing Pinter Manager								

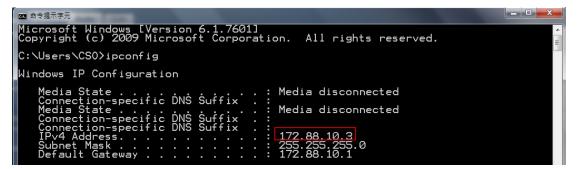
- 2. You can also verify **Monitor** > **Wireless** > **AP Information**.
 - (1) Ensure that the UAG4100 can manage and control the NWA5123-NI.
 - (2) Ensure that the NWA5123-NI AP has got the IP address 172.17.1.1 under LAN

2.

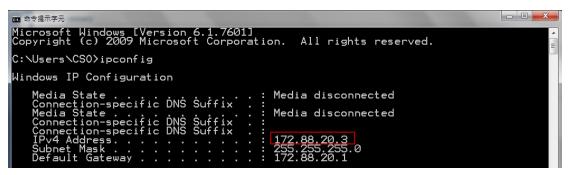
YXEL UAG4100	AP L	ist Radio Lis									
MONITOR	APL	SC RAUIO LIS									
 System Status 	AP Li	ist									
Port Statistics	0	Add to Mgnt AP	P List 📑 More Inf	formation							
 Interface Status Traffic Statistics 	#	Status	Registration	IP Address	MAC Address	Model	Mgnt. VLAN	Description .	Station	Recent On-I	Last Off-lin
Session Monitor	1	4	Mgnt AP	172.17.1.1	B0:B2:DC:6F:12:43	NWA5123-NI	1/1	AP-B0B2DC6F1243	0	09:52:32 20	09:52:17 20
 DDNS Status IP/MAC Binding 	2	4	Mgnt AP	127.0.0.1	B0:B2:DC:6F:46:50	UAG4100	1/0	Local-AP	0	07:57:32 20	N/A
Login Users	K	I Page 1	of1 ▶ ▶	Show 50 v items							Displaying 1 - 2
 UPnP Port Status 											
 USB Storage Dynamic Guest 											
Wireless											
AP Information											
Station Into Printer Status	ł										



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



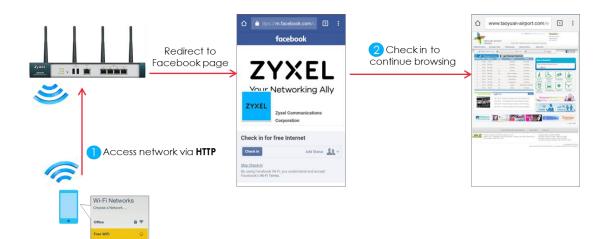
4. Connect the laptop with the SSID "Client", and you can get the IP address of 172.88.20.3 under VLAN 20 from the AP.





Scenario 7 – How to Configure Facebook Wi-Fi

The following figure depicts how a business partner links their local business Facebook page and the UAG device together to provide Wi-Fi access to users after interacting with their Facebook accounts. When a user first access the Internet, the UAG device will redirect the browser to the business partner's Facebook page. Users are guaranteed Internet access after they checked in the specific Facebook page.



Prerequisite

- 1. The UAG device must be registered on myZyXEL.com beforehand.
- 2. A Facebook fan page with valid address.

Configuration Flow

- 1. Enable web authentication
- 2. Enable Facebook Wi-Fi
- 3. Configure your Facebook page settings
- 4. Create an authentication policy



Configurations

1. First, enable web authentication through the UAG's web GUI.

Go to Configuration > Web Authentication > General screen's Global Setting section. Select the Enable Web Authentication check box.

1	CONFIGURATION	Web Authen	tication Walled Garden	Advertisement		
_	🎌 Quick Setup	General	Authentication Type	Custom Web Portal File	Custom User Agreement File	Facebook Wi-Fi
	Licensing Vireless Network Interface Routing DDNS NAT VPN 1-1 Mapping HTTP Redirect SMTP Redirect		Web Authentication General Setting 1.1.1.	1		
	ALG UPnP IP/MAC Binding Layer 2 Isolation IPnP Web Authentication Security Policy Billing	1	Exceptional Services 🔺	how 50 💌 items		

2. Enable Facebook Wi-Fi and pair up with your page.

Go to Configuration > Web Authentication > Facebook Wi-Fi screen's Global Setting section. Select the Enable Facebook Wi-Fi check box and click Configure.

E	CONFIGURATION	Web Authentication	Walled Garden	Advertisement		
	🏹 Quick Setup	General Authentic	ation Type	Custom Web Portal File	Custom User Agreement File	Facebook Wi-Fi
	 ⊞ Licensing ⊞ Wireless 	General Settings				
	Network Interface	Enable Facebook V	Vi-Fi			
r.	Routing DDNS	Configure	This device is no	ot paired with facebook. Pleas	se configure this device.	
	 NAT VPN 1-1 Mapping HTTP Redirect 	Reset FB Page				
	SMTP Redirect	Enable user idl				
	+ ALG + UPnP	User idle timeou	t:	10	(1-60 minutes)	
	IP/MAC Binding Layer 2 Isolation IPnP	1. If you want to us		-Fi, Please go to <u>Web Auther</u> up Facebook Wi-Fi for your l	<u>itication policy summary</u> . business. Please visit <u>Facebool</u>	<u>k help center</u> .
	 → Web Authentication E Security Policy → Billing 					



3. Click the **Configure** button to go to Facebook. Log into your Facebook account on the browser before continuing with the steps below. You can click **Create Page** or select an existing page to pair up with the UAG.

S132L1	9210023
claimed a	have a compatible local business Page to continue. A compatible Page needs to be nd associated with a valid location. For more information, visit the Facebook Help Center Page
Or add a	valid address to one of the pages below:
4	Zyxel.cso

4. After the device is successfully paired up with Facebook, this **Configure** button functions as a shortcut to Facebook's Wi-Fi settings screen.

Facebook Wi-Fi Configuration S132L19210023	
Facebook Page	
To use Facebook Wi-Fi you need to be the admin of a local business Page that ha location associated with it.	as a valid
Csotest 🔻	
Bypass Mode	
Your customers always have the option to skip checking in. They can do this by cli link that lets them skip check-in, or by entering a Wi-Fi code that you provide to the	-
 Skip check-in link [?] Require Wi-Fi code [?] 	
Session Length	
Select the length of time your customers will have Wi-Fi for after they check in.	
Five hours 🔻	
Terms of Service	
Optional: Add your own Terms of Service [?]	
sit Help Center	Save Settings



You can configure the following:

Bypass Mode: to allow users to skip check-in for Wi-Fi access.

Session Length: sets how long the users can have Wi-Fi access.

Add your own Terms of Service.

For more information on this screen, please contact Facebook support.

5. Finally, configure an authentication policy.

Go to Configure > Web Authentication > General screen's Web Authentication Policy Summary section and click Add to add a new policy.

•	CONFIGURATION	Web Authentication Waled Garden Advertisement					
	TY Quick Setup	General Authentication Type Custom Web Portal File Custom User Agreement File	Facebook Wi-Fi				
 ())	 Licensing Wireless Network 	Global Setting					
	Web Authentication Security Policy	Enable Web Authentication					
	+ Billing	Web Portal General Setting					
	 Printer Free Time SNS 	Logout IP: 1.1.1,1					
SMS BWM Exceptional Services Object							
	⊞ System	🚯 Add 🍵 Remove					
	E Log & Report	# Exceptional Services					
		1 DNS					
		◀ ◀ Page 1 of 1 ▶ ▶ Show 50 ▼ items					
		Web Authentication Policy Summary					
		🕥 Add 👔 Edit: 🍟 Remove 💡 Activate 🚽 Inactivate 🚚 Move					
		Status Priority Incoming Interface Source Destination	Schedule				
		Default any any any	none				
I Page 1 of 1 > > Show 50 rems							



Select the Force User Authentication check box and select facebook wi-fi as the Authentication Type.

🖉 Auth. Policy Edit	dvertisement			? 🗙
🔠 Create new Object 🗸				
General Settings				
Enable Policy				
Description:	Description: Facebook-wifi Auth (Optional)			
User Authentication Po	licy			
Incoming Interface:	lan2	~		
Source Address:	any	~		
Destination Address:	any	*		
Schedule:	none	*		
Authentication:	required	*		
Force User Authen	tication 🚺			
Authentication Type:	default-web-portal	~		
	default-web-portal			
	default-user-agreement			
	facebook-wifi			
				OK Cancel

This policy is to ensure that clients must go through Facebook Wi-Fi check-in before having Wi-Fi access.

Verification

Connect to Wi-Fi and the check-in process should be like this:

Access Zyxel.com website	EXAMPLE A Communications Corporation
E 0 8 maganature ZYXEL NAUK ALME KANK ALME MAKK () Q INCO	🖡 Zysel Communications Corporation 🔍 🔲 Cauny Nones (Institutions 红 🔘 🥥 eli
Meet Your Networking Ally	ZYXEL Zyxel Communications Corporation Control Continue Browsing Control Continue Browsing Control Continue Browsing Control Contro
Nu 급 중 대 27 FEB - 2 MAR 2017 BARCELONA, SFAIN: 97 FEB - 2 MAR 2017 5010, Hall S	Posts Reviews di Lite Di Follow di State me Send Message