



Newbridge WaveStation 2812

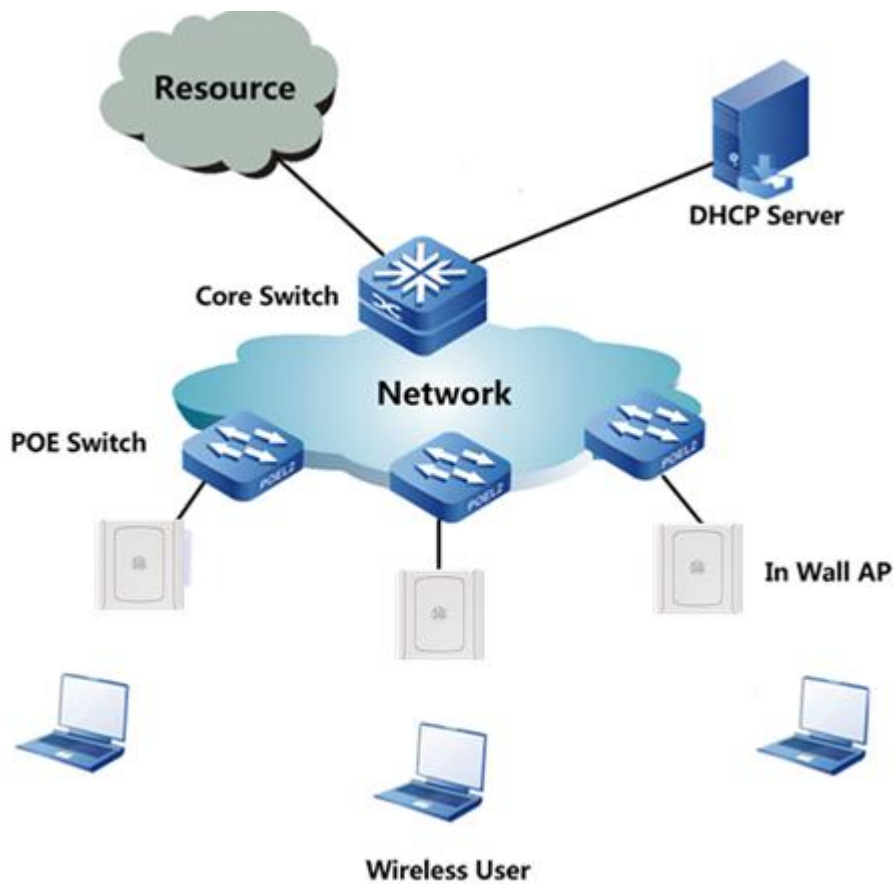
Operational Manual

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Typical Deployment Guide

1 Typical Diagram



2 Components

DHCP Server: To allocate IP address for each wireless user

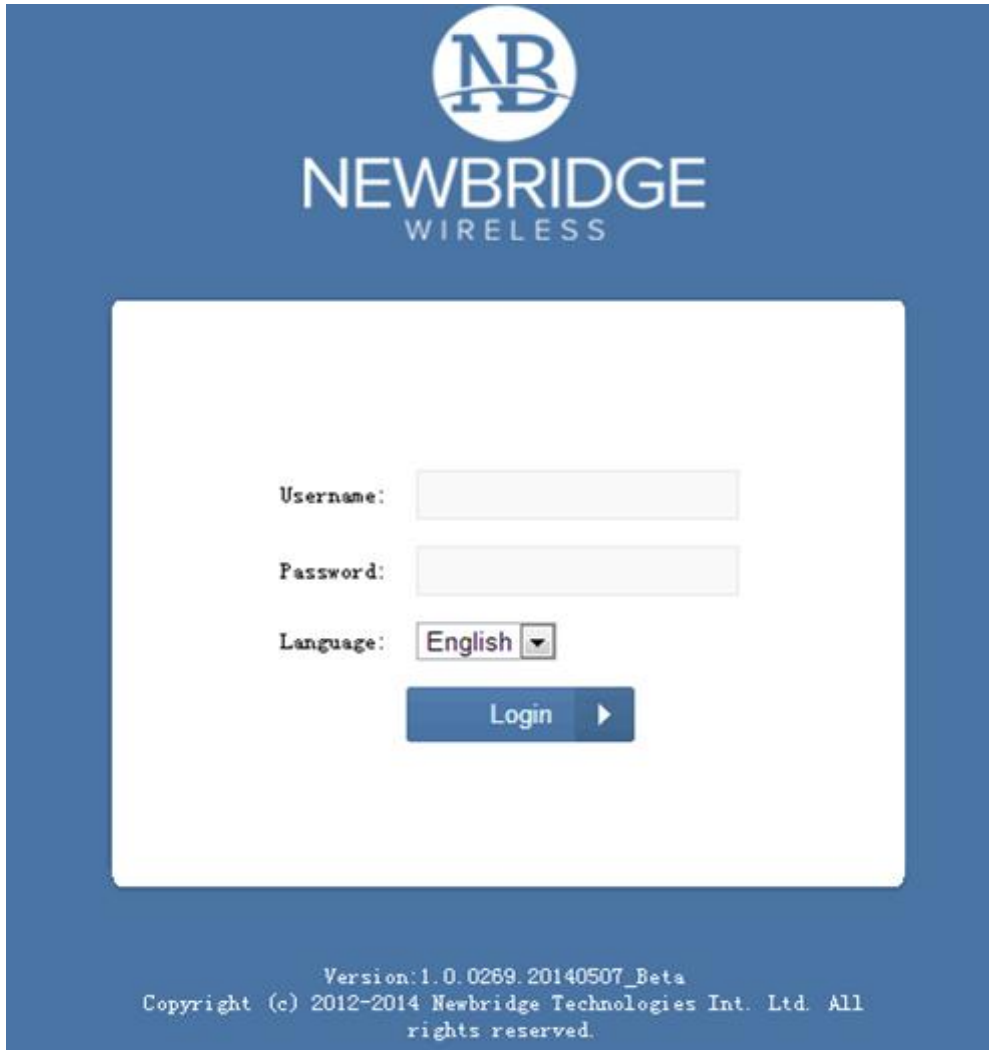
Core Switch: To forward traffic

POE Switch: To forward traffic and provide power supply to AP

In Wall AP: To bridge wired and wireless network

3 Deployment Procedure

- a. Login to AP web GUI,
Default IP address of AP is 192.168.1.2/24
Default user name and password are admin



The image shows the login interface of the Newbridge Wireless AP web GUI. It features a blue header with the Newbridge Wireless logo. Below the logo, there is a white rectangular box containing the login form. The form includes fields for 'Username:', 'Password:', and 'Language:' (with a dropdown menu set to 'English'). A blue 'Login' button with a right-pointing arrow is positioned below the language dropdown. At the bottom of the page, the version '1.0.0269.20140507_Beta' and copyright information 'Copyright (c) 2012-2014 Newbridge Technologies Int. Ltd. All rights reserved.' are displayed.

- b. The default IP address of AP is 192.168.1.2/24, to click the notepad icon under Edit column to change it

192.168.1.2/edit_interface.html?id=1

Edit VLAN Interface

IP :	☒ Static ☐ DHCP ☐ None		
IP Address :	192.168.1.2	Primary DNS :	
Netmask :	255.255.255.0	Secondary DNS :	
Gateway IP :			
MTU:	1500		
DHCP Server:	☐		

Apply

Reset

- c. AP default running on 802.11 g/n modes, change the desire mode else let it default.

Basic Settings

Wireless Mode :	Access Point
Region Code :	Malaysia
IEEE 802.11 Mode :	802.11gn
Channel Width :	20 MHz
Channel Shifting :	Disable
Channel :	auto
Tx Power :	20
Max TX Rate :	MCS 15 - 130 [300]

Advanced Settings

WMM Settings

Apply

- d. Go to SSID menu

Wireless Settings

Wireless1	Wireless2	Wireless3	Wireless4
Wireless Availability : ☒ Enable ☐ Disabled Hide SSID : ☐ Enable ☒ Disabled SSID : Newbridge VLAN : 1 Mac Filter : Disable			

- e. There's a default SSID "Newbridge" always there, you can just modify the "Newbridge" or choose to add a new SSID.
- f. Override the default SSID to edit the SSID

g. Edit WLAN settings

Wireless Settings ▲

Wireless1

Wireless2

Wireless3

Wireless4

Wireless Availability : ☒ Enable ☐ Disabled

Hide SSID : ☐ Enable ☒ Disabled

SSID :

VLAN : ▼

Mac Filter : ▼

▼

Wireless Availability: Enable or disable SSID

Hide SSID: Broadcast or not broadcast the SSID

SSID: SSID name

VLAN: VLAN ID that the SSID binded

Mac Filter: Enable or disable Mac Filter

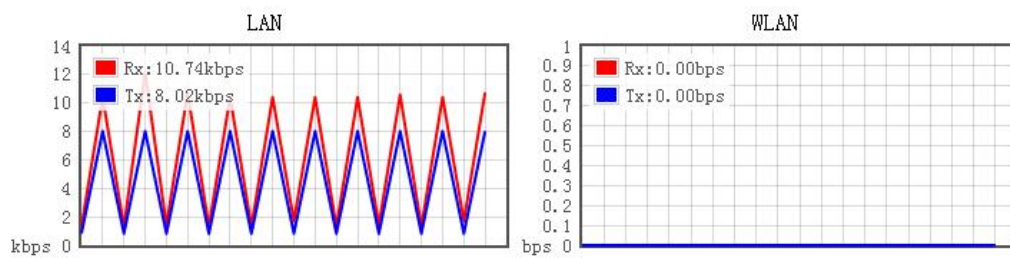
- h. **To support multiple SSID, the port of POE switch connected to in wall AP required to allow all vlans that binded to different SSID, as well as the port connected to DHCP server**
- i. **Ensure the layer 2 connectivity between AP and switch**
- j. **AP is plug and play so that just ensure it's powered by POE switch**
- k. Go to WLAN Status and WLAN Clients menu to check their status

Status

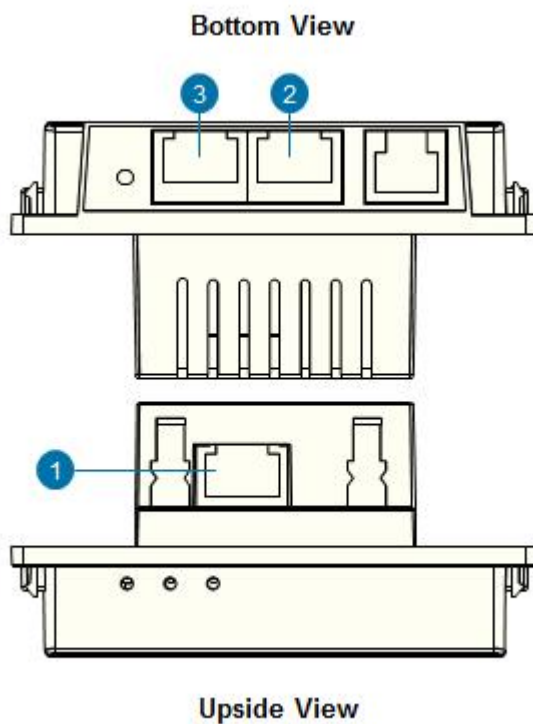
WIRELESS	NETWORK	SYSTEM
Radio		
Wireless Mode :	Access Point	Radio Mode : 11gn
Channel/Frequency :	11 / 2462	Tx Power : 20 dBm
Channel Width :	20 MHz	Tx Busy : 1
Region Code :	Malaysia	Rx Busy : 19
Max Rate :	144.4 Mbps	Total Busy : 22
TDCA :	Disable	Spectral Mode : Disable
Wireless1  [Up]		
SSID :	Newbrige	BSSID : FC:AD:0F:01:2A:68
Security :	NONE	Assoc Number : 0
Wireless2  [Down]		
Wireless3  [Down]		
Wireless4  [Down]		

Monitor

[Throughput](#) | [Interfaces](#) | [ARP](#) | [STA Stats](#) | [Routes](#) | [Log](#)



4 VLAN Configuration



No	Port Description
1	Eth0
2	Eth1 with PSE function
3	Eth2

- a. Go to Network and VLAN Menu and Click Add Button

MAIN
RADIO
WIRELESS
NETWORK
SERVICES
SYSTEM

Network Role

Network Mode : Bridge

Auto IP Aliasing : vlan1

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 eth1 eth2 wlan1			

Add

- b. Define the VLAN ID and click Apply button

New VLAN

VLAN ID: (Range:1-4094)

Apply

- c. Click Edit on the VLAN ID 10

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 eth1 eth2 wlan1			
10	vlan10	Disable				

Add

- d. Assign port eth1 and eth2 to VLAN 10 and click Apply button

Edit VLAN

VLAN ID:	10		
VLAN Description :	vlan10		
STP:	☐		
Port :	Untagged Port	Tagged Port	No Member
eth0:	☐	☐	☒
eth1:	☒	☐	☐
eth2:	☒	☐	☐
wlan1:	☐	☐	☒

- e. Click Apply button

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 wlan1			
10	vlan10	Disable	eth1 eth2			
Add						

VLAN Interface

Static Routes

Traffic Shaping

- f. Click Save button to activate the changes

Configuration contains changes. Save these changes?

- g. From the VLAN table, port eth1 and eth2 belongs to VLAN 10

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 wlan1			
10	vlan10	Disable	eth1 eth2			
Add						

VLAN Interface

5 Enable POE function on Eth1 port

- a. Go to System->Location, tick PSE Enable function and click Apply button

MAIN	RADIO	WIRELESS	NETWORK	SERVICES	SYSTEM
------	-------	----------	---------	----------	--------

Device

Ping Watchdog

Device Description : Newbridge WaveStation
 Language : English
 Timezone : (GMT) Western Europe Tim
 Enable Startup Date : ☐
 Startup Date : 2013-03-01

Ping Watchdog : ☐
 IP Address :
 Web URL :
 Startup Delay : seconds
 Ping Interval : seconds
 Failed Tries To Reboot :

System Accounts

Location

Misc

Latitude :
 Longitude :

PSE Enable : ☒

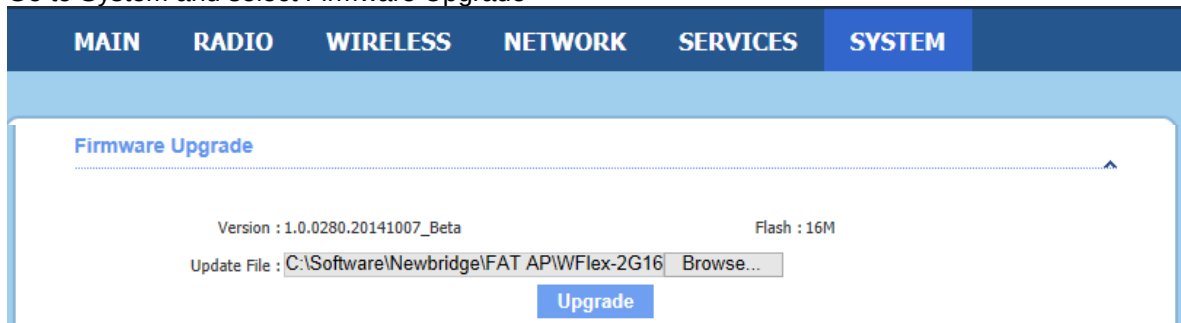
Apply

- b. Click Save button to activate the changes

Configuration contains changes. Save these changes?

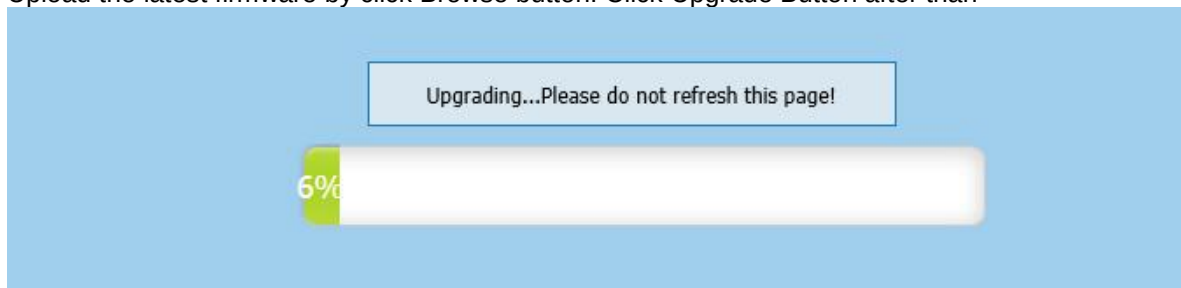
6 Firmware Upgrade

- a. Go to System and select Firmware Upgrade



The screenshot shows the 'Firmware Upgrade' page in the Newbridge Wireless management interface. The top navigation bar includes 'MAIN', 'RADIO', 'WIRELESS', 'NETWORK', 'SERVICES', and 'SYSTEM', with 'SYSTEM' being the active tab. The page title is 'Firmware Upgrade'. It displays the current 'Version : 1.0.0280.20141007_Beta' and 'Flash : 16M'. Below this, the 'Update File' field shows a local path 'C:\Software\Newbridge\FAT API\WFlex-2G16' with a 'Browse...' button. An 'Upgrade' button is positioned at the bottom of the form.

- b. Upload the latest firmware by click Browse button. Click Upgrade Button after than



The screenshot shows the progress bar during the firmware upgrade. A message box at the top states 'Upgrading...Please do not refresh this page!'. Below it, a progress bar is shown with a green segment indicating 6% completion.

- c. Wait for the progress until 100%. It will auto back to the default login page. Please notice firmware version highlighted inside the Red box.



The screenshot shows the default login page of the Newbridge Wireless interface. It features the company logo and name at the top. Below is a login form with fields for 'Username', 'Password', and a 'Language' dropdown menu set to 'English'. A 'Login' button with a right arrow is located below the form. At the bottom, a red box highlights the text 'Version: 1.0.0288' and 'Copyright (c) 2012-2014 Newbridge Wireless, Inc. All rights reserved'.

FCC Warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.