



Newbridge WaveStation 3812

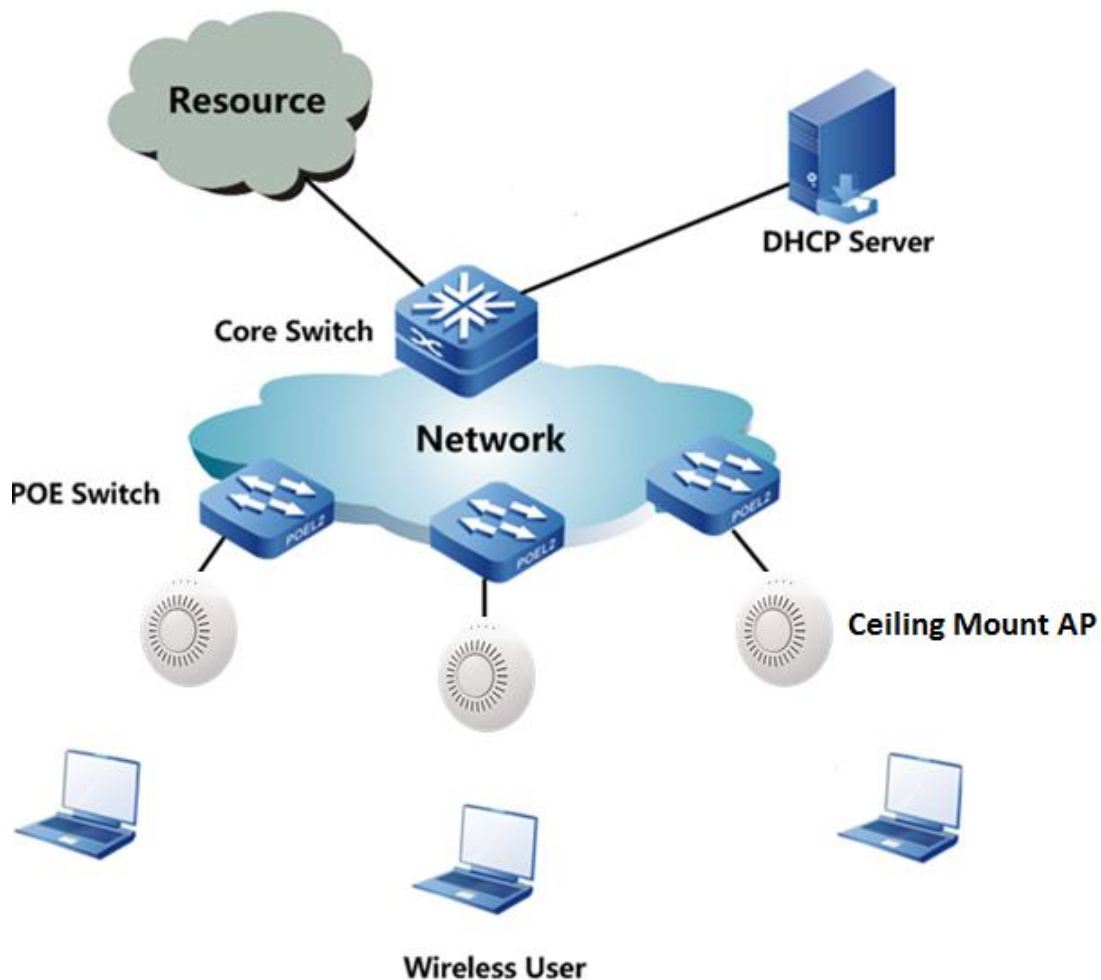
Operational Manual

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Typical Deployment Guide

1 Typical Diagram



2 Components

DHCP Server: To allocate IP address for each wireless user

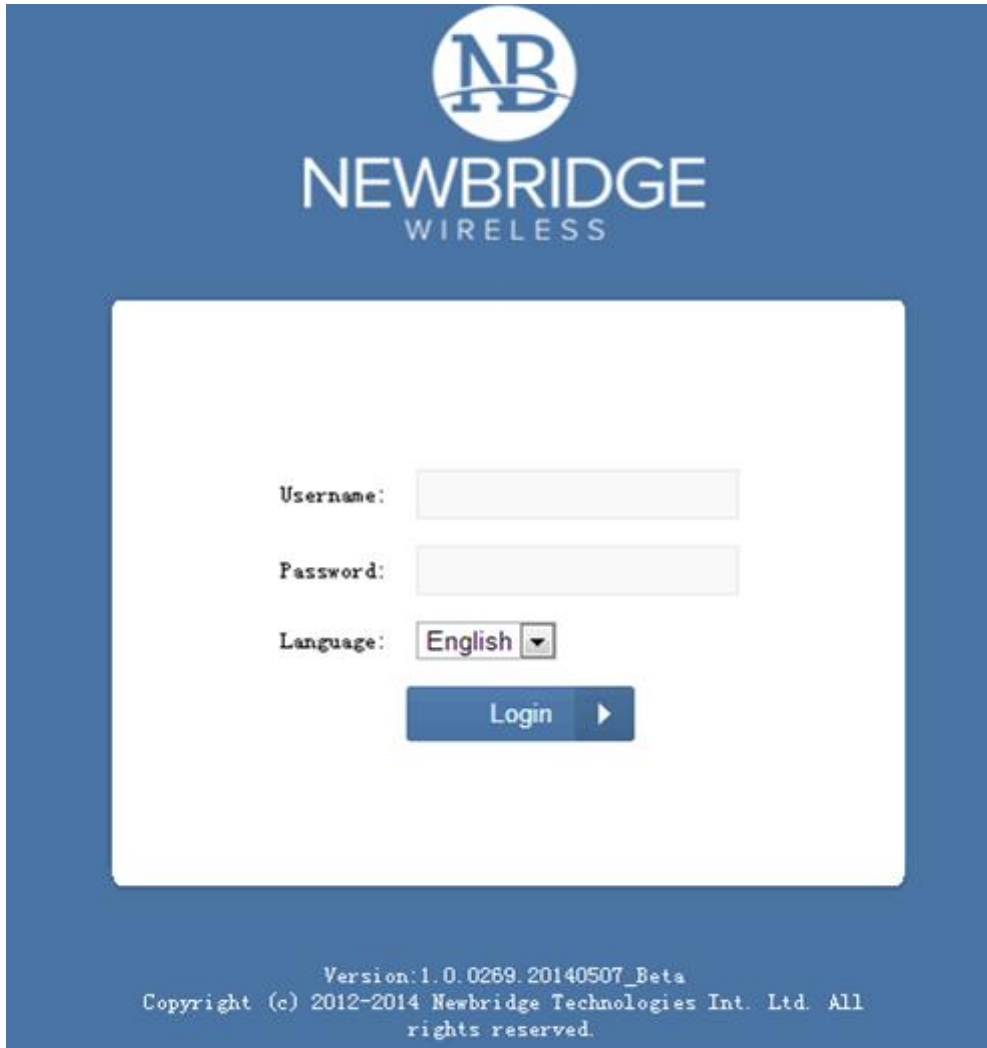
Core Switch: To forward traffic

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

Ceiling Mount 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 page for Newbridge Wireless. At the top, there is a logo with the letters 'NB' inside a circle, followed by the text 'NEWBRIDGE WIRELESS'. Below this, there is a white rectangular box containing the login form. The form has three fields: 'Username:' with a text input field, 'Password:' with a text input field, and 'Language:' with a dropdown menu showing 'English'. Below these fields is a blue 'Login' button with a right-pointing arrow. At the bottom of the page, there is a version string 'Version:1.0.0269.20140507_Beta' and a copyright notice 'Copyright (c) 2012-2014 Newbridge Technologies Int. Ltd. All rights reserved.'

- 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 :	<input checked="" type="radio"/> Static <input type="radio"/> DHCP <input type="radio"/> None		
IP Address :	<input type="text" value="192.168.1.2"/>	Primary DNS :	<input type="text"/>
Netmask :	<input type="text" value="255.255.255.0"/>	Secondary DNS :	<input type="text"/>
Gateway IP :	<input type="text"/>		
MTU:	<input type="text" value="1500"/>		
DHCP Server:	<input type="checkbox"/>		

- c. AP default running on 802.11 g/n modes, change the desire mode else let it default. Set the Region Code to the respective country. For example, Malaysia

Basic Settings

Wireless Mode :	<input type="text" value="Access Point"/>
Region Code :	<input type="text" value="Malaysia"/>
IEEE 802.11 Mode :	<input type="text" value="802.11gn"/>
Channel Width :	<input type="text" value="20 MHz"/>
Channel Shifting :	<input type="text" value="Disable"/>
Channel :	<input type="text" value="auto"/>
Tx Power :	<input type="text" value="24"/>
Max TX Rate :	<input type="text" value="MCS 15 - 130 [300]"/>

Advanced Settings

WMM Settings

- d. Go to SSID menu

Wireless Settings

Wireless1
Wireless2
Wireless3
Wireless4

Wireless Availability : ☒ Enable ☐ Disabled

Hide SSID : ☐ Enable ☒ Disabled

SSID :

VLAN :

Mac Filter :

- 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

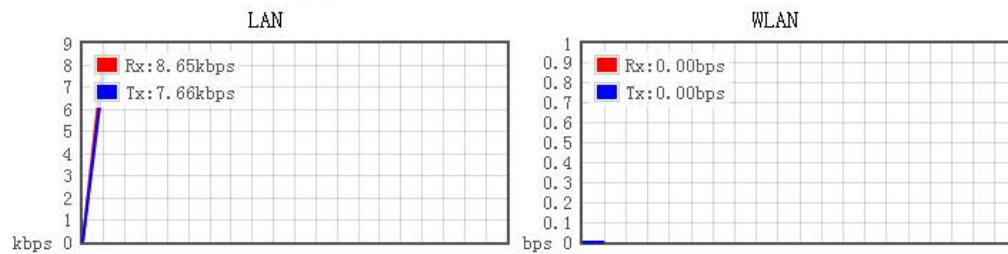
- h. **To support multiple SSID, the port of POE switch connected to in wall AP required to allow all vlans that binded to different SSID, as well as the port connected to DHCP server**
- i. **Ensure the layer 2 connectivity between AP and switch**
- j. **AP is plug and play so that just ensure it's 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 :		6 / 2437		Tx Power : 24 dBm	
Channel Width :		20 MHz		Tx Busy : 2	
Region Code :		Malaysia		Rx Busy : 21	
Max Rate :		144.4 Mbps		Total Busy : 24	
TDCA :		Disable		Spectral Mode : Disable	
Wireless1  [Up]					
SSID :		Newbridge		BSSID : FC:AD:0F:00:80:B8	
Security :		NONE		Assoc Number : 0	
Wireless2  [Down]					
Wireless3  [Down]					
Wireless4  [Down]					

Monitor

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



4 VLAN Configuration

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

MAIN **RADIO** **WIRELESS** **NETWORK** **SERVICES** **SYSTEM**

Network Role

Network Mode :

Auto IP Aliasing : ☒

VLAN

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

Add

- d. Assign port eth0 VLAN 10 and click Apply button

Edit VLAN

VLAN ID :	<input type="text" value="10"/>		
VLAN Description :	<input type="text" value="vlan10"/>		
STP :	<input type="checkbox"/>		
Port :	Untagged Port	Tagged Port	No Member
eth0 :	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
wlan1 :	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

- e. Click Apply button

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 wlan1			
10	vlan10	Disable		eth0		
<input type="button" value="Add"/>						

VLAN Interface

Static Routes

Traffic Shaping

- f. Click Save button to activate the changes

Configuration contains changes. Save these changes?

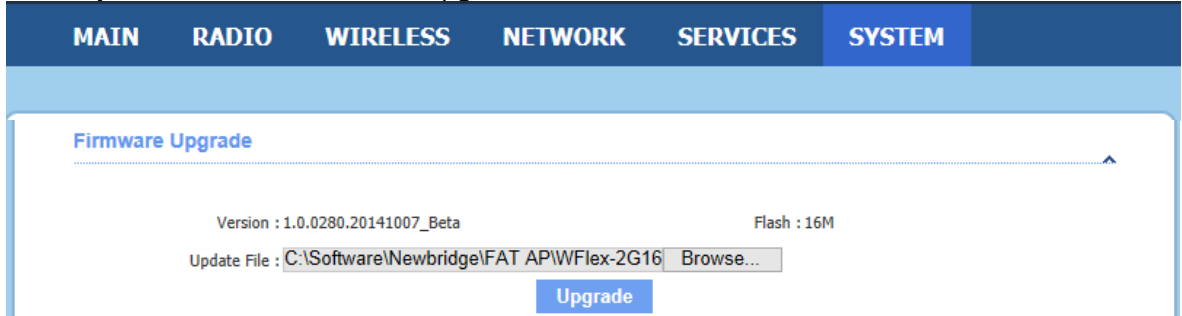
- g. From the VLAN table, port eth0 belongs to VLAN 10

VLAN

ID	Describe	STP	Untagged Port	Tagged Port	Edit	Delete
1	vlan1	Disable	eth0 wlan1			
10	vlan10	Disable		eth0		
<input type="button" value="Add"/>						

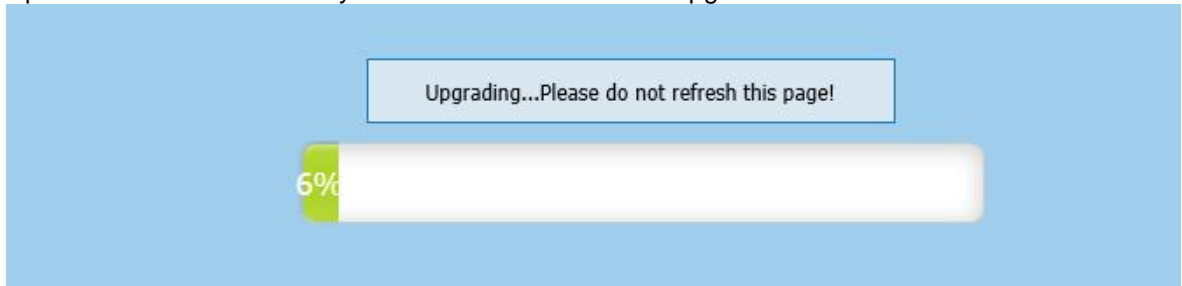
5 Firmware Upgrade

- a. Go to System and select Firmware Upgrade



The screenshot shows the 'Firmware Upgrade' page. At the top is a navigation bar with tabs: MAIN, RADIO, WIRELESS, NETWORK, SERVICES, and SYSTEM (which is highlighted). Below the navigation bar, the page title 'Firmware Upgrade' is displayed. The current version is '1.0.0280.20141007_Beta' and the flash size is '16M'. The 'Update File' field contains the path 'C:\Software\Newbridge\FAT AP\WFlex-2G16'. There is a 'Browse...' button next to the file path and an 'Upgrade' button below it.

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



The screenshot shows a progress bar indicating the firmware upgrade status. A message box above the bar says 'Upgrading...Please do not refresh this page!'. The progress bar is partially filled with green, and the text '6%' is visible on the left side of the bar.

- 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 Newbridge Wireless login page. The page has a blue background with the Newbridge Wireless logo at the top. Below the logo is a white rounded rectangle containing the login form. The form has fields for 'Username', 'Password', and 'Language' (set to 'English'). There is a 'Login' button with a right arrow. At the bottom of the page, the text 'Version: 1.0.0288' is highlighted with a red box. Below this, the copyright notice 'Copyright (c) 2012-2014 Newbridge Wireless, Inc. All rights reserved' is visible.

FCC Caution:

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.

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

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.