



BWRACWALL Quick Start Guide

V1 .1

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1 – Introduction

This Quick Start Guide will help you configure the BRACWALL. These basic instructions will aid in setting up the access controller, and will walk through setting up and managing BWLWAPG1000 lightweight access points. For advanced help and other options refer to the User's Manual (available for download at www.Bountifulwifi.com).

Requirements:

A computer running Windows 2000, Windows XP, Windows Vista or Mac that is already connected to the internet.

In the box you will receive a BWRACWALL, a power supply, an Ethernet cable and a quick start guide.

2– Logging into the BWRACWALL

STEP 2.1

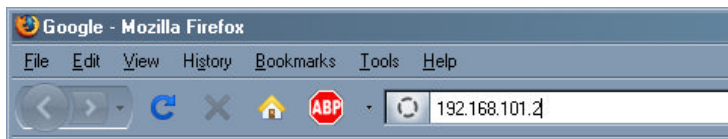
Plug an Ethernet cable from a computer into the LAN port of the BWRACWALL

STEP 2.2

Open up a browser window i.e.: Firefox, Explorer, Safari. The BWRACWALL runs a web server IP (192.168.101.2) on its LAN connection.

STEP 2.3

Type 192.168.101.2 into the address bar



STEP 2.4

Input user name and password when prompt appears.

Default user name and password

Username: admin

Password: admin

3– Navigating the web GUI

STEP 3.1

When you first access the Bountiful® Wi-Fi BWRACWALL web GUI, the system status screen will appear. Along the left-hand side of all the screens is a menu to allow you to navigate to other screens. The default Bountiful® Wi-Fi BWRACWALL configuration may be sufficient for you. If not review the following sections.



System

- General setup
- Static routes
- Firmware
- Advanced
- User manager

Interfaces

- LAN
- WAN
- OPT1
- OPT2
- OPT3
- OPT4

Firewall

- Rules
- NAT
- Traffic shaper
- Aliases

Services

- DNS forwarder
- Dynamic DNS
- DHCP server
- DHCP relay
- SNMP
- Proxy ARP
- Captive portal
- Wake on LAN
- SIP Proxy

Wireless

- SSID configuration
- AP configuration


VPN

- IPsec
- PPTP

Status

- System
- Interfaces
- Traffic graph
- Wireless APs

▶ Diagnostics

System information	
Name	south.villageonmainstreet.com
Version	1.3b13-bwifi-beta3 built on Thu Dec 11 00:00:00 CEST 2008
Platform	generic-pc
Uptime	31 days, 22:44
Last config change	Fri Jan 2 14:14:46 MST 2009
CPU usage	view graph
Memory usage	 13%
Notes	<div style="border: 1px solid black; height: 100px; width: 100%;"></div> <div style="text-align: right;"><input type="button" value="Save"/></div>

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4– Changing the LAN/WAN Interfaces

STEP 4.1

Under the Interface screen on the left hand side of the screen click on WAN

The screenshot shows the Bountiful webGUI Configuration page. The left sidebar contains a navigation menu with categories: System, Interfaces (circled), Firewall, Services, Wireless, and VPN. Under 'Interfaces', 'WAN' is selected. The main content area is titled 'webGUI Configuration' and 'Interfaces: WAN'. It features a 'Type' dropdown menu with options: PPPoE (selected), Static, DHCP, PPPoE, and PPTP. Below this are four configuration sections: 'General configuration' with a 'MAC address' field and a note; 'Static IP configuration' with 'IP address' and 'Gateway' fields; 'DHCP client configuration' with a 'Hostname' field and a note; and 'PPPoE configuration' with 'Username', 'Password', and 'Service name' fields.

If unsure how the controller will work with the existing network contact the network administrator.

STEP 4.2

Click on the dropdown to view network type.

STEP 4.3

Select network type.

DHCP- Select DHCP if the controller will be getting its IP from and existing router.

PPPoE- Scroll down to PPPoE configuration and input username and password (if unsure what the username and password are; contact the internet service provider (ISP)).

Static IP- Scroll down to the static IP configurations section and input the IP address, gateway IP, and subnet. Click on General setup screen and scroll down to the DNS server section. Input the correct DNS IPs.

STEP 4.4

Click on LAN under Interfaces to change the LAN settings.

The screenshot shows the Bountiful Wi-Fi webGUI Configuration page. The left sidebar contains a navigation menu with categories: System (General setup, Static routes, Firmware, Advanced, User manager), Interfaces (LAN, WAN, OPT1, OPT2), Firewall (Rules, NAT), and Tools. The main content area is titled "webGUI Configuration" and "Interfaces: LAN". It features an "IP address" field set to "192.168.101.2" with a subnet dropdown menu set to "24". A "Save" button is located below the IP address field. A "Warning" message states: "Warning: after you click 'Save', you must reboot your firewall for changes to take effect. You may also have to do one or more of the following steps before you can access your firewall again." Below the warning is a bulleted list: "change the IP address of your computer", "renew its DHCP lease", and "access the webGUI with the new IP address".

Change IP address and subnet to desired IP for LAN port.

5– Setting up the DHCP Server

STEP 5.1

Click on DHCP under the services section.

Services: DHCP server

The screenshot shows the Bountiful Wi-Fi webGUI Configuration page for the DHCP server settings. The left sidebar is the same as in the previous screenshot. The main content area is titled "LAN" and "Services: DHCP server". It features a "Enable DHCP server on LAN interface" checkbox which is checked. Below it is a "Deny unknown clients" checkbox which is unchecked, with a note: "If this is checked, only the clients defined below will get DHCP leases from this server." The "Subnet" field is set to "192.168.101.0", "Subnet mask" to "255.255.255.0", and "Available range" to "192.168.101.0 - 192.168.101.255". The "Range" field is set to "192.168.101.100" to "192.168.101.199". The "WINS servers" field is empty. The "Default lease time" field is set to "7200" seconds, with a note: "This is used for clients that do not ask for a specific expiration time. The default is 7200 seconds." The "Maximum lease time" field is set to "86400" seconds, with a note: "This is the maximum lease time for clients that ask for a specific expiration time. The default is 86400 seconds." The "Next server" field is set to "192.168.101.2", with a note: "Specify the server from which clients should load the boot file. This is usually only needed with PXE booting and some VoIP phones, and can usually be left empty." The "Filename" field is set to "ipimage.bin", with a note: "Specify the name of the boot file on the server above. This is usually only needed with PXE booting and some VoIP phones, and can usually be left empty." A "Save" button is located below the "Filename" field. A "Note" states: "The DNS servers entered in System: General setup (or the DNS forwarder, if enabled) will be assigned to clients by the DHCP server." Below the note is a link: "The DHCP lease table can be viewed on the Diagnostics: DHCP leases page." At the bottom, there is a table with columns "MAC address", "IP address", and "Description".

STEP 5.2

Check the box to enable DHCP server on the LAN interface. It is possible to change the range of IPs being assigned on the LAN

Note: If the lightweight access points are going to be managed by the BWRACWALL the next server IP address must specify the server from which clients should load the boot file.

6– Configuring the SSID

STEP 6.1







Click on SSID under Wireless section.

webGUI Configuration


south.villageonmainstreet.com


Wireless: SSID Configuration

SSID name	Description
VillageOnMain	Default Config
First SSID wep	
Second SSID	

To make changes click on the  for edit.

Click on  to configure additional SSIDs.

Click on the  to delete existing SSIDs.

- System
 - General setup
 - Static routes
 - Firmware
 - Advanced
 - User manager
- Interfaces
 - LAN
 - WAN
 - OPT1
 - OPT2
- Firewall
 - Rules
 - NAT
 - Traffic shaper
 - Aliases
- Services
 - DNS forwarder
 - Dynamic DNS
 - DHCP server
 - DHCP relay
 - SNMP
 - Proxy ARP
 - Captive portal
 - Wake on LAN
 - SIP Proxy
- Wireless
 - SSID configuration
 - AP configuration
- VPN
 - IPsec
 - PPTP
- Status
 - System
 - Interfaces
 - Traffic graph
 - Wireless APs
 - Captive portal
- ▶ Diagnostics

Wireless: SSID Configuration: Edit SSID configuration

SSID name	<input type="text" value="VillageOnMain"/>	Enter a character string for the wireless network's SSID name.
Description	<input type="text" value="Default: Config"/>	You may enter a description here for your reference (not parsed).
Encryption	<input type="text" value="none"/>	
Key/Passphrase /Shared Secret	<input type="text" value="none"/>	here. WEP 5, 13, or 26 characters; PSK 8 to 63 characters. For wpa/wpa2 the RADIUS shared secret.
RADIUS server	<input type="text" value=""/>	Enter the IP address of the RADIUS server.
RADIUS port	<input type="text" value=""/>	Enter the RADIUS port number for the RADIUS server.
APs using this SSID	Default AP Config 00:14:ac:00:17:cf South 3rd floor East Corner 00:14:ac:00:17:d2 South 317 00:14:ac:00:17:cb South Side 309 00:14:ac:00:17:c8 South Side 241 00:14:ac:00:17:cd South Side 253 00:14:ac:00:17:c0 Leasing Office	
<input type="button" value="Save"/>		

STEP 6.2

Input an SSID in the given box. It is also suggested that you type a description but not required.

STEP 6.3

Encryption- Determine the level of security you wish your wireless network to have. Input a unique password and save the changes.

7– AP Association, Default AP Configuration, Unique AP Configuration

STEP 7.1

AP Association:

STEP 7.1.1

Plug your BWLWAPG1000(s) (lightweight Bountiful® Wi-Fi Access Point(s) into your BRWACWALL LAN port or into the switch used with your controller.

STEP 7.1.2

Wait a few minutes until your BWLWAPG1000 associates with the controller.

STEP 7.1.3

Go to the Wireless “AP Configuration” menu to verify that your BWLWAPG1000 has successfully associated. You will see your description, heartbeat, first SSID and encryption presented on the screen. A green heartbeat signifies a successful and real time association between AP and the BRWACWALL controller.

webGUI Configuration south.villageonmainstreet.com

System
 General setup
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 OPT2

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 SIP Proxy

Wireless
 SSID configuration
 AP configuration

VPN
 IPsec
 PPTP

Wireless: AP Configuration

Default AP Configuration

Wireless Enabled	Channel	SSID 1	SSID 2	SSID 3	SSID 4
YES	6	VillageOnMain	none	none	none

Discovered APs (32 Max)

Description	IP address	Heartbeat	First SSID	Encryption	Using Default AP Configuration
00:14:ac:00:17:cf South 3rd floor East Corner	192.168.101.196	2009/1/16 13:16:08 44	VillageOnMain	none	NO
00:14:ac:00:17:d2 South 317	192.168.101.197	2009/1/16 13:15:57 55	VillageOnMain	none	NO
00:14:ac:00:17:cb South Side 309	192.168.101.195	2009/1/16 13:16:30 22	VillageOnMain	none	NO
00:14:ac:00:17:c8 South Side 241	192.168.101.199	2009/1/16 13:16:17 35	VillageOnMain	none	NO
00:14:ac:00:17:cd South Side 253	192.168.101.194	2009/1/16 13:16:52 0	VillageOnMain	none	NO
00:14:ac:00:17:c0 Leasing Office	192.168.101.198	2009/1/16 13:16:48 4	VillageOnMain	none	NO

STEP 7.2


Default AP Configuration:

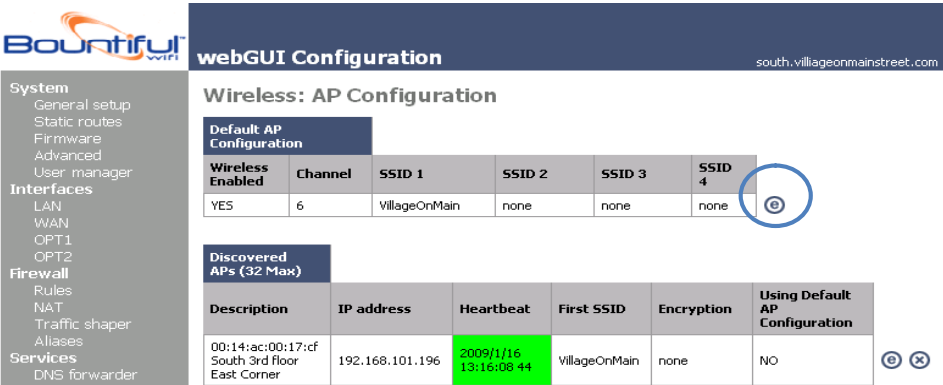
STEP 7.2.1

Under “AP Configuration” look for the “Default AP Configuration” tab.

STEP 7.2.2



Push the  to begin configuring the default AP.



The screenshot shows the Bountiful WiFi webGUI Configuration page. The left sidebar contains navigation options: System (General setup, Static routes, Firmware, Advanced, User manager), Interfaces (LAN, WAN, OPT1, OPT2), Firewall (Rules, NAT, Traffic shaper, Aliases), and Services (DNS forwarder). The main content area is titled "webGUI Configuration" and "Wireless: AP Configuration". It features two tables: "Default AP Configuration" and "Discovered APs (32 Max)".

Default AP Configuration					
Wireless Enabled	Channel	SSID 1	SSID 2	SSID 3	SSID 4
YES	6	VillageOnMain	none	none	none

Discovered APs (32 Max)					
Description	IP address	Heartbeat	First SSID	Encryption	Using Default AP Configuration
00:14:ac:00:17:cf South 3rd Floor East Corner	192.168.101.196	2009/1/16 13:16:08 44	VillageOnMain	none	NO

STEP 7.2.3

Here you can configure the following AP defaults: AP name, wireless status, channel, SSID.

STEP 7.2.4

Press save when you are complete. All new APs will automatically be setup with your default configuration.

webGUI Configuration south.villageonmainstreet.com

Wireless: AP Configuration: Edit AP configuration

AP name
Enter a character string to identify the AP.

MAC address default

Wireless **Enable wireless interface**

Channel 6

SSID 1 none

SSID 2 none

SSID 3 none


SSID 4 none

Save













STEP 7.3

Unique AP Configuration:

STEP 7.3.1

To change your configurations per AP return to the main wireless AP configuration screen and press the  next to the AP you would like to uniquely configure.

- OPT1
- OPT2
- Firewall**
 - Rules
 - NAT
 - Traffic shaper
 - Aliases
- Services**
 - DNS forwarder
 - Dynamic DNS
 - DHCP server
 - DHCP relay
 - SNMP
 - Proxy ARP
 - Captive portal
 - Wake on LAN
 - SIP Proxy
- Wireless**
 - SSID configuration
 - AP configuration
- VPN**
 - IPsec
 - OpenVPN

Discovered APs (32 Max)						
Description	IP address	Heartbeat	First SSID	Encryption	Using Default AP Configuration	
00:14:ac:00:17:cf South 3rd floor East Corner	192.168.101.196	2009/1/16 13:16:08 44	VillageOnMain	none	NO	 
00:14:ac:00:17:d2 South 317	192.168.101.197	2009/1/16 13:15:57 55	VillageOnMain	none	NO	 
00:14:ac:00:17:cb South Side 309	192.168.101.195	2009/1/16 13:16:30 22	VillageOnMain	none	NO	 
00:14:ac:00:17:c8 South Side 241	192.168.101.199	2009/1/16 13:16:17 35	VillageOnMain	none	NO	 
00:14:ac:00:17:cd South Side 253	192.168.101.194	2009/1/16 13:16:52 0	VillageOnMain	none	NO	 
00:14:ac:00:17:c0 Leasing Office	192.168.101.198	2009/1/16 13:16:48 4	VillageOnMain	none	NO	 

STEP 7.3.2

Here you can uniquely configure per AP the: AP name, MAC address, IP address, turn off and on the default AP configuration, wireless status, WDS (bridge and repeater). Please see user's manual for more information on how to configure lightweight APs as bridge or repeater), channel and SSID. Remember, your encryption is configured by SSID under "wireless SSID configuration."

STEP 7.3.3

Press Save when you are complete configuring your AP.

System

- General setup
- Static routes
- Firmware
- Advanced
- User manager

Interfaces

- LAN
- WAN
- OPT1
- OPT2

Firewall

- Rules
- NAT
- Traffic shaper
- Aliases

Services

- DNS forwarder
- Dynamic DNS
- DHCP server
- DHCP relay
- SNMP
- Proxy ARP
- Captive portal
- Wake on LAN
- SIP Proxy


Wireless

- SSID configuration
- AP configuration

VPN

Wireless: AP Configuration: Edit AP configuration

AP name	00:14:ac:00:17:cf South 3rd floor Ea Enter a character string to identify the AP.
MAC address	00:14:ac:00:17:cf
IP address	192.168.101.196
Default AP	<input type="checkbox"/> Use default ap configuration
Wireless	<input checked="" type="checkbox"/> Enable wireless interface
Wireless Distribution Service mode	disabled To enable WDS select repeating or bridge.
WDS Root AP	disabled Select the AP to repeat or bridge.
Channel	11
SSID 1	VillageOnMain
SSID 2	none
SSID 3	none
SSID 4	none
Save	

After you press save a red  or “push configuration” will appear. Allow a few moments for the configuration to finish. Some configurations may take longer than others. A percentage sign will appear to indicate how much of the configuration has been completed.

This completes the Quick Setup guide for the BWRACWALL controllers and lightweight Access Points. If you would like assistance on setting up additional features or would like a more in depth explanation on how to set up the controller, please go to www.Bountifulwif.com and download the BWRACWALL users manual

