BILLION

Billion SG600R2
Smart Energy Wireless Router

Quick Start Guide

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WARNING

Federal Communication Commission Interference Statement

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.

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
(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 this equipment. . This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

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.

Contains TX FCC ID:QI3BIL-MD1000

WARNING

電磁波曝露量MPE標準值1mW/cm2，送測產品實測值為:0.0392 mW/cm2，本產

品使用建議應距離人體大於 20 cm以上

NCC Warning Statement
Article 12
Without permission, any company, firm or user shall not alter the frequency,
increase the power, or change the characteristics and functions of the original
design of the certified lower power frequency electric machinery.
Article 14
The application of low power frequency electric machineries shall not affect the
navigation safety nor interfere a legal communication, if an interference is found,
the service will be suspended until improvement is made and the interference no
longer exists.

CHAPTER 1

Introduction

Introduction of BEsmart

The issue of environmental protection and energy conservation has been received great attentions since the global warming and energy shortage have become a serious worldwide crisis. Billion BEsmart highlights the importance of energy preservations and managements, and contributes smart solutions for Telco/ISP/SI service providers who dedicate to strengthening customer satisfactions. With the implement of the smart control, track, and monitor power consumption technologies, energy usage could be clearly examined and analyzed anytime and anywhere simply through a smart phone. It helps reduce energy waste, provide a green environment, and further increase the benefit of the mutual investment, that is, the investors and customers.

BEsmart brings a great amount of benefits with a long-term effect: Increase Average Revenue, Increase Customers' Satisfaction and Loyalty, Reduce Customers' Churn Rate, Leverage Existing Network Infrastructure, Bring GREEN and Carry Out CSR. Furthermore, BEsmart also provides effective power management, highly flexible on connection and establishment, and extended applications on other services. Creating a win-win situation for service providers and customers and establishing a green society are what BEsmart expect to accomplish.

BEsmart Application
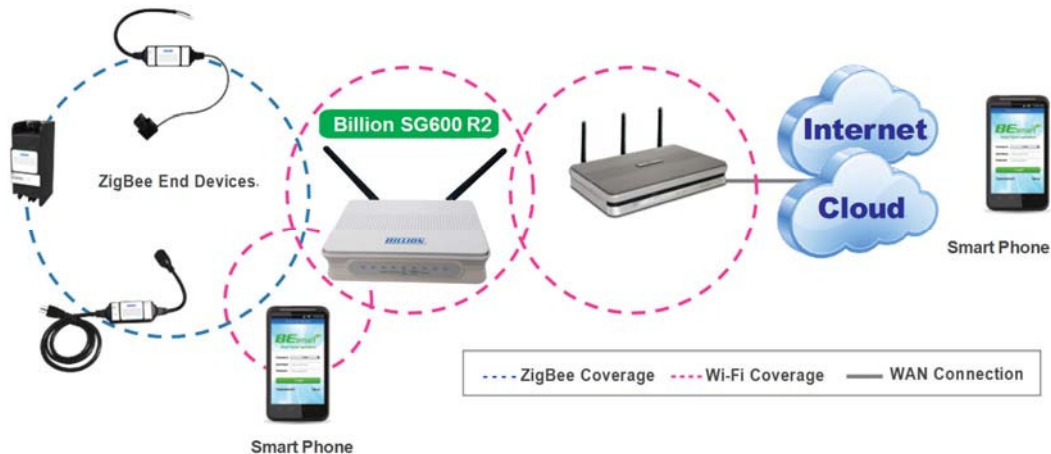
The Billion BILLION SG600R2, ZigBee Wireless Smart Energy Gateway, is a TCP/IP based ZigBee/Wi-Fi appliance designed for users to enjoy real-time power management. Integrated with ZigBee wireless technology, the BILLION SG600R2 can communicate wirelessly with Billion ZigBee-enabled smart device, like SG3015-Tx meter and SG110-A Temperature / Humidity sensor.

The Billion BILLION SG600R2 not only provides a wireless AP feature for connecting with local smart phone or notebook but also acts as a wireless client for connecting to Internet. This feature can extend the wireless coverage and reduce the wiring cost.

This ZigBee Wireless Smart Energy Gateway pushes all the recorded data to the back-end / cloud system which were built by SI and software companies so users can remotely monitor energy consumption and manage their appliances. This solution is ideal for SI of energy management, utility projects and service providers.

CHAPTER 2

Installation of Web Manager

The router not only functions as a smart wireless bridge but builds Power Management Application into Web GUI. End users can monitor real time power information and control the Smart Energy Meter through Web GUI remotely. Please be noted that here we just focus on functions that are relevant to the power smart management. Let's start the configurations.

2.1   Quick Start

Step 1 : Hardware setting

Connect the BILLION SG600R2 to your PC's Ethernet interface with supplied RJ-45 Ethernet cable and the other side to a router or modem with Ethernet cable or wireless client for the internet connection.

Step 2: Computer IP setting

The default address of BILLION SG600R2 is **10.10.10.252**. For the first setting, please modify your PC IP to the recommended IP **10.10.10.100** (ranged from 10.10.10.1 to 10.10.10.251).

Step3: Access to BILLION SG600R2 WEB GUI

1. Open your web browser and enter the IP address of your router, which by default is **10.10.10.252**, and click "Go". Then a login window prompt will appear.

2. The default username and password are "admin" and "admin" respectively. Choose "Administrator" from the account type to configure and manage the web settings if your are authorized to access the router.

3. Once you have logged in to your BILLION SG600R2, you can begin to set it up according to your requirements. You would see the main page of basic status, including Device Information, Port Status, and WAN information.

4. Time Zone Setting

First, set up the time to meet the time zone of your country. Click "Continute".
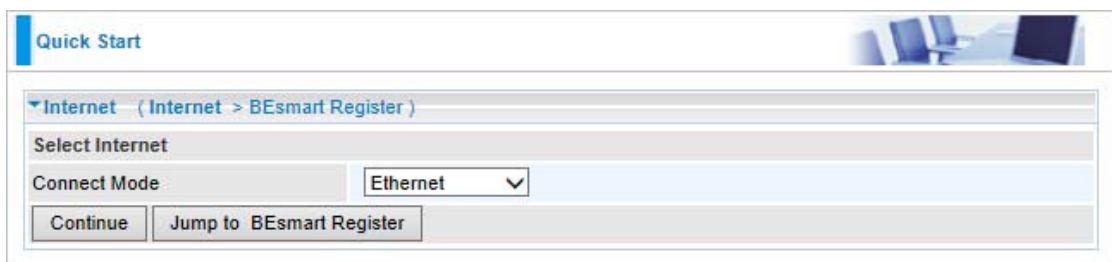
5. BILLION SG600R2 provides the WAN interface based on your own backbone router. There are 2 Connect Modes: **Ethernet** and **Wireless Client**.

EWAN: Your backbone router/cable modem is based on Ethernet base.

Wireless Client: Your backbone router or cable modem has the Wi-Fi function.

For the detail Configuration, please refer to BILLION SG600R2internet configuration document.

Quick Start	
▼Internet (Internet > BEsmart Register)	
Select Internet	
Connect Mode	Ethernet ▼
Continue Jump to BEsmart Register	
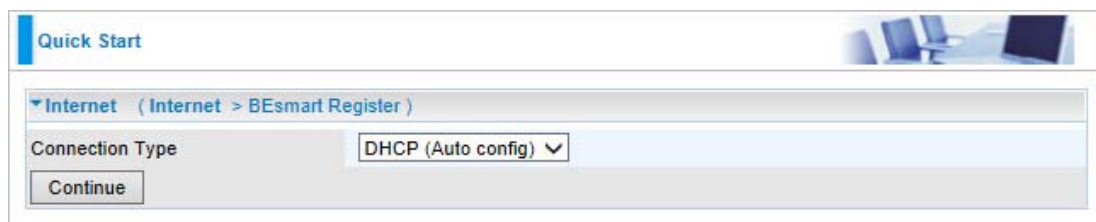
6. There are 3 types of connection protocols available for WAN connect mode: **Obtain an IP Address Automatically**, **Fixed IP Address**, and **PPPoE**

connection.

Obtain an IP Address Automatically (DHCP)

When connecting to the ISP, your router also functions as a DHCP client. That is, your backbone device is xDSL router and your PC is assigned an IP address automatically.
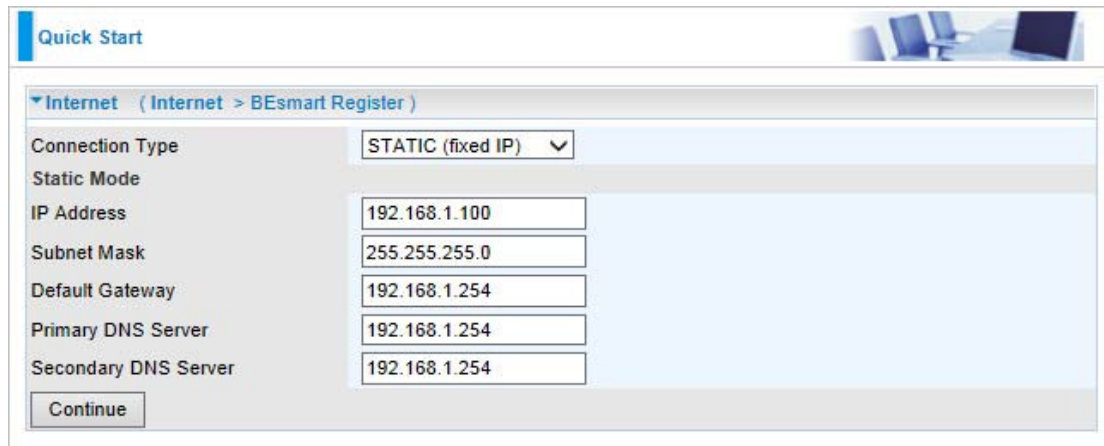
Quick Start	
▼Internet (Internet > BEsmart Register)	
Connection Type	DHCP (Auto config) ▼
Continue	

Fixed IP Address (STATIC IP)

Your backbone device is xDSL router and your PC IP is based on Static IP.
Enter the information provided by your ISP
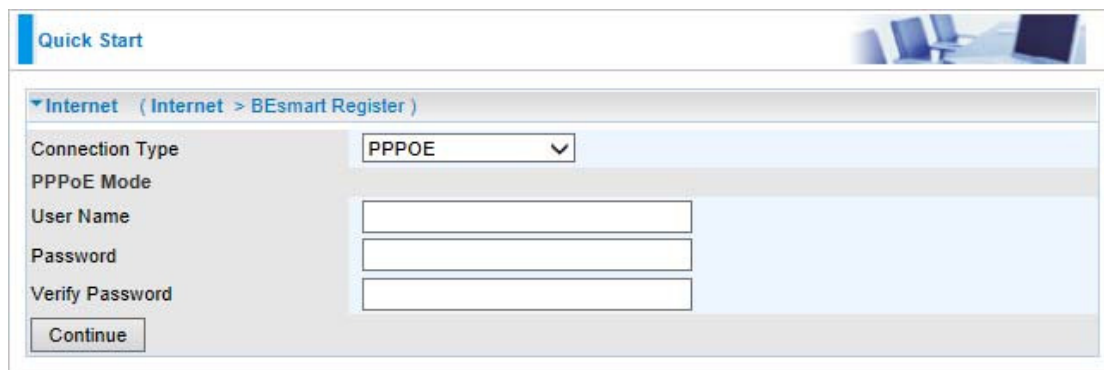
PPPOE

If your backbone device is xDSL cable modem, please choose PPPOE.
For the detail internet configurations, please refer to BILLION SG600R2internet
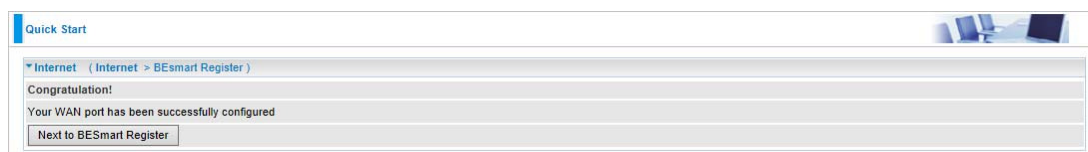
settings.
Click "Continue" to proceed to the next step.

7. After clicking "Continue", the program would start to save the settings. After successfully saving the settings, you would be directed to BEsmart Registration.
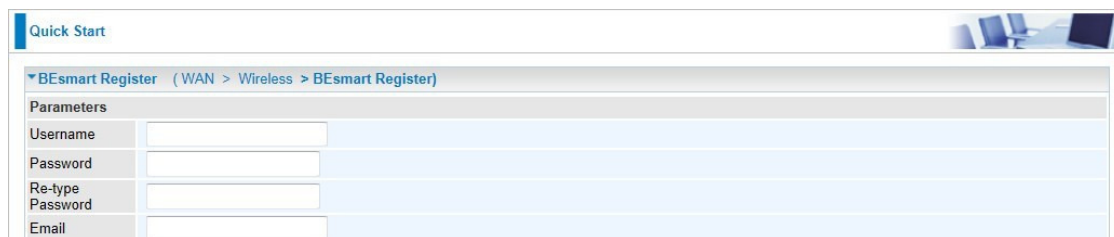
8. This is BEsmart Registration for cloud server. Create a username and password and offer the E-mail for the registration, then read the term and check the box "I accept the Term of Service". Click "Apply" to confirm the application.

11. Congratulations! Your BEsmart cloud server has been successfully registered. All the received power information would be stored on the cloud. Click "Need to Save Flash" button to save your settings.
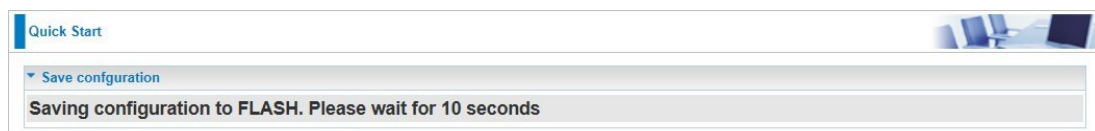

12. Please wait for 10 seconds for saving the configuration.

13. The easy configurations of your device have been finished. Congratulations!
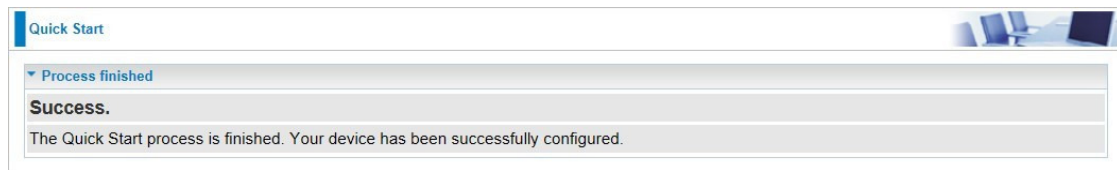
> **NOTE:**
>
> **Please ensure that the smart wireless bridge and its backbone router/modem are maintained in a connection status or it may result in different power consumption data between measurement and real condition.**