Belleds MB8800
2.4G+WiFi Smart Router

User Guide

(Firmware: mb8800_r74.bin)
2014-08-08

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CONTENT

1 INTRODUCTION 3

1.1 VERIFY KIT CONTENTS 3

1.2 CONNECTION 3

2 CONFIGURATION 4

2.1 CONFIGURATION IN PC 4

2.2 CONFIGURATION IN DETAIL 6

2.2.1 Music Service 6

2.2.2 Basic Settings 9

2.2.3 Internet Connection 15

2.2.4 Upgrade Firmware 20

3 BELLEDS IN MOBILE 25

3.1 PREPARATION (HARDWARE & SOFTWARE) 25

3.2 CONFIGURATION IN MOBILE 27

3.3 PLAY MUSIC 28

3.3.1 Music List 28

3.3.2 Music Play 29

3.3.3 Music & LEDs synchronize 32

3.4 LED CONTROL 33

3.4.1 ON and OFF 34

3.4.2 Adjust Color of LEDs 34

1 Introduction

MB8800 Belleds is a product that can make the LEDs blinking synchronously with the rhythm of your music which is in your mobile. Just install the application called “belleds” in your mobile. Then you can control the music play, the color of the LEDs by your mobile.

1.1 Verify Kit Contents

MB8800 kit includes the following components.

1. MB8800 Router
2. Power Adaptor
3. LAN Cable
4. Audio Cable

1.2 Connection

Make sure the device and the cables are connected correctly.

1. MB8800 Router’s **power line interface** connects to **Power Adaptor** with the power line.
2. MB8800 Router’s **LAN interface** connects to **network interface** of PC with the LAN cable.
3. MB8800 Router’s **Audio interface** connects to **audio interface of the earphones or speaker** with the audio cable.

2 Configuration

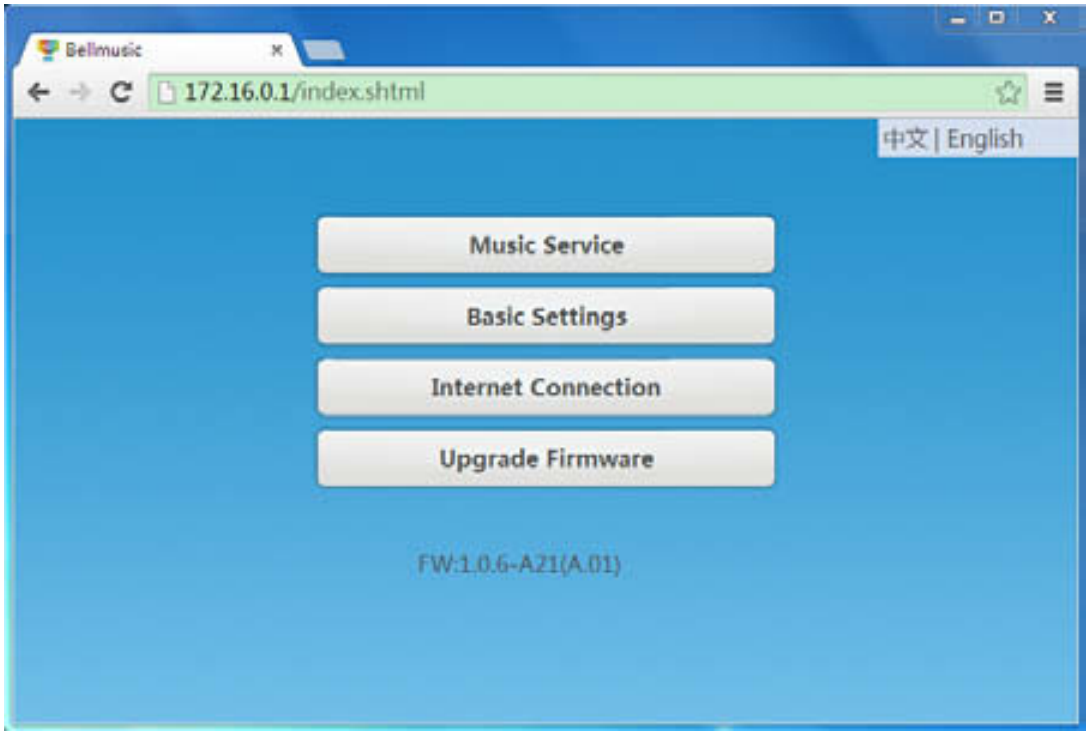
You can set the MB8800 Router WIFI related configuration in PC or mobile.
The details are as below.

2.1 Configuration in PC

1. Connect your computer to MB8800 using the attached Ethernet cable and set your computer “Obtain an IP address automatically”.
2. Make sure that your computer has got IP address from the MB8800, then open the web browser and enter **“http://172.16.0.1”(by default)**. Press Enter key, the MB8800 configuration home page will appear (*Figure 2-1*).
3. The default language is Chinese. You can click “**English**” on the top right corner. Then you will enter English interface (*Figure 2-2*).

Figure 2-1 ***MB8800 configuration home page (Chinese)***

Figure 2-2 ***MB8800 configuration home page (English)***



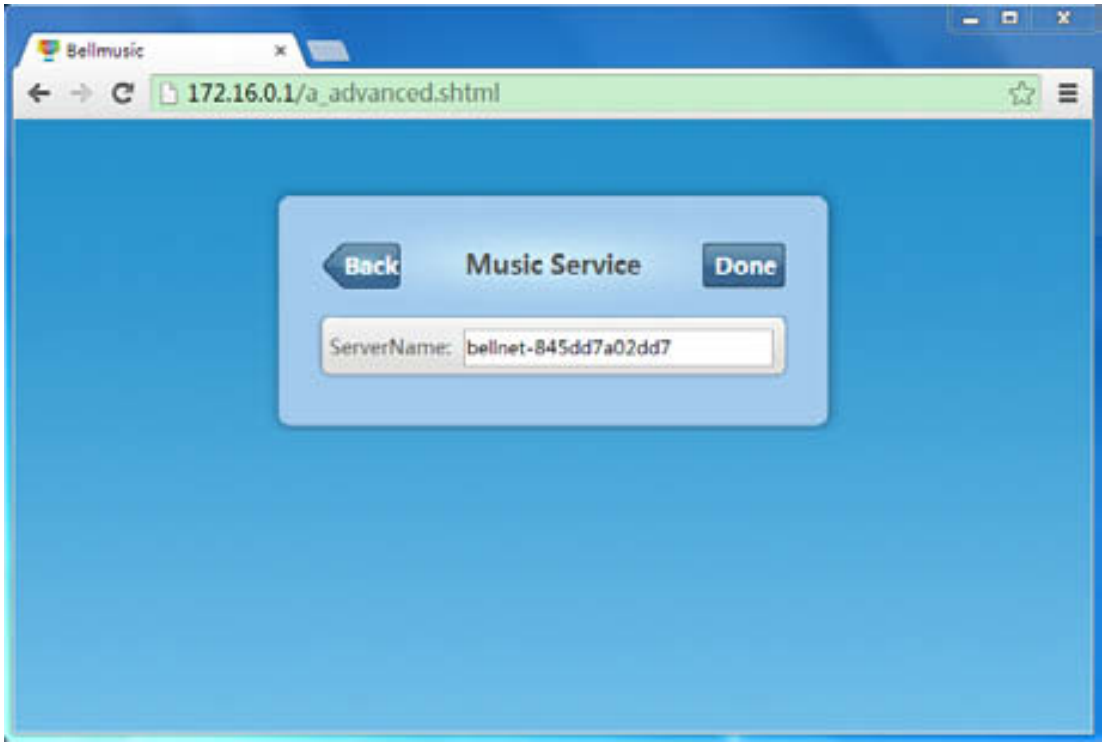
2.2 Configuration in detail

2.2.1 Music Service

This function controls the **renderer name** in **belleds**.
(The **belleds** is one application in mobile that can make the led synchronize with the music.)

Click **"Music Service"**, to enter the management page *(Figure 2-3).*
Click **"Back"**, to go back to MB8800 configuration home page *(Figure 2-2).*

Figure 2-3 ***Music Service screen***



You can change the Server Name:

1. **Input the Server Name** which you want in the field. *(Figure 2-4)*
2. **Click "Done"** *(Figure 2-5)*, after **10** seconds it will pop-up a window *(Figure 2-6)*:
3. **Click "Yes", and refresh** the page. Then the Server Name has been changed successfully. *(Figure 2-7)*

Figure 2-4 ***Input the Server Name you want in field***

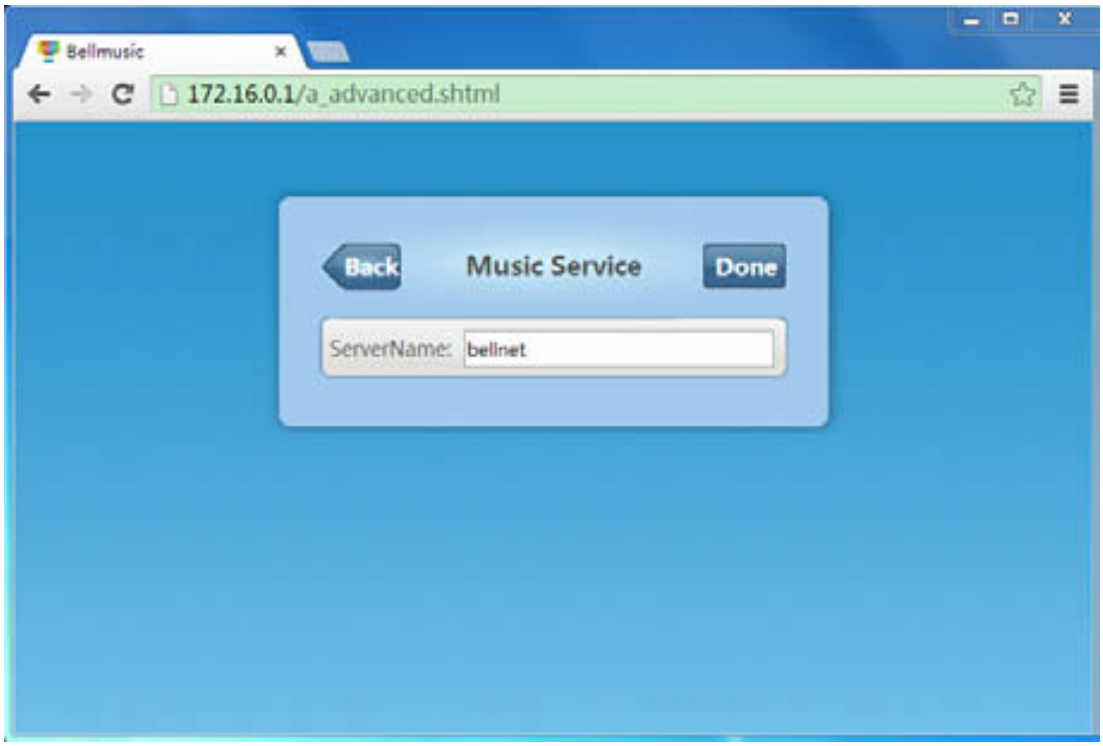


Figure 2-5 ***Click "Done"***

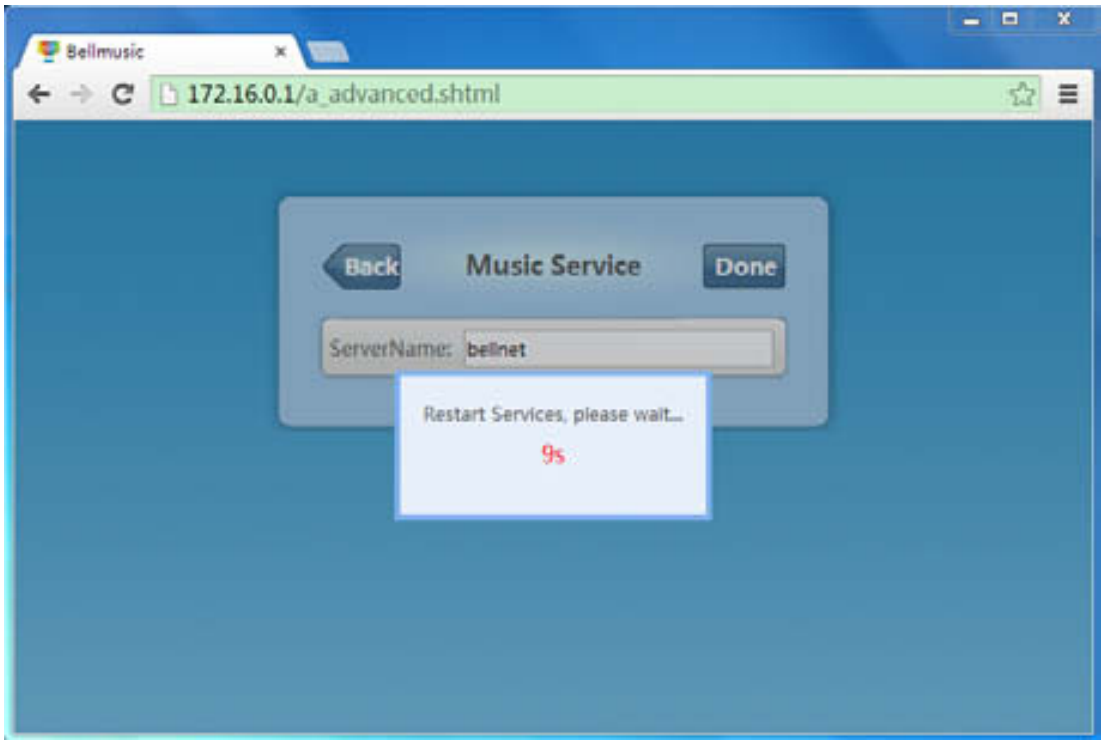


Figure 2-6 ***After 10 seconds, it will pop-up a window.***

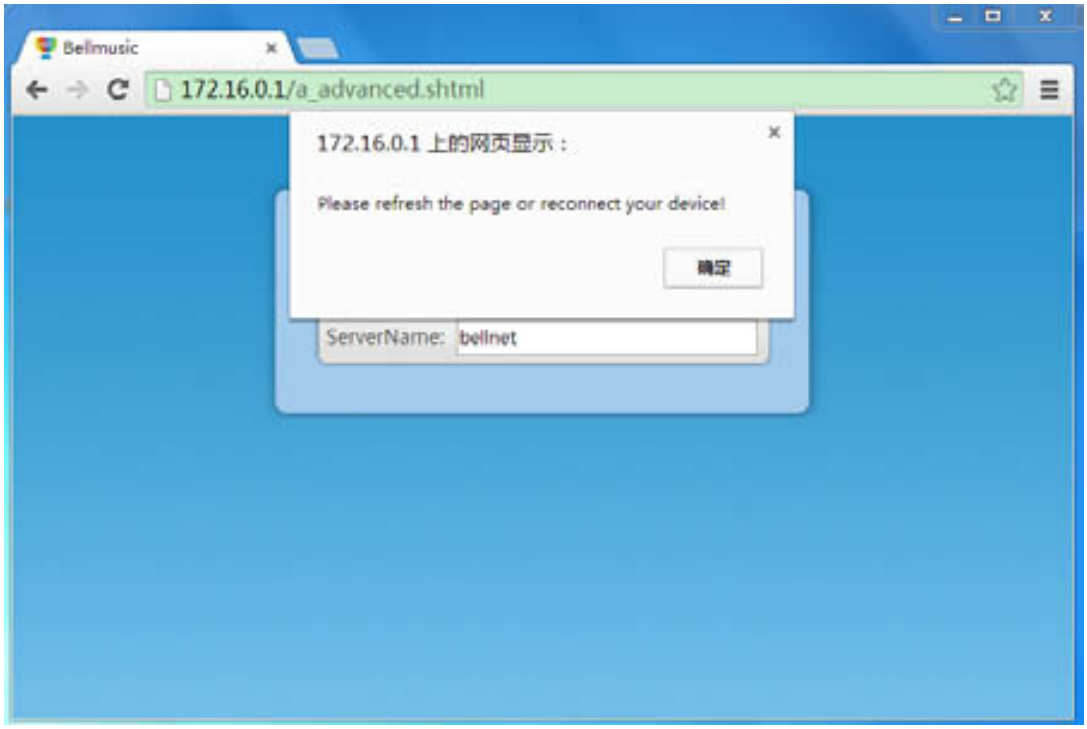
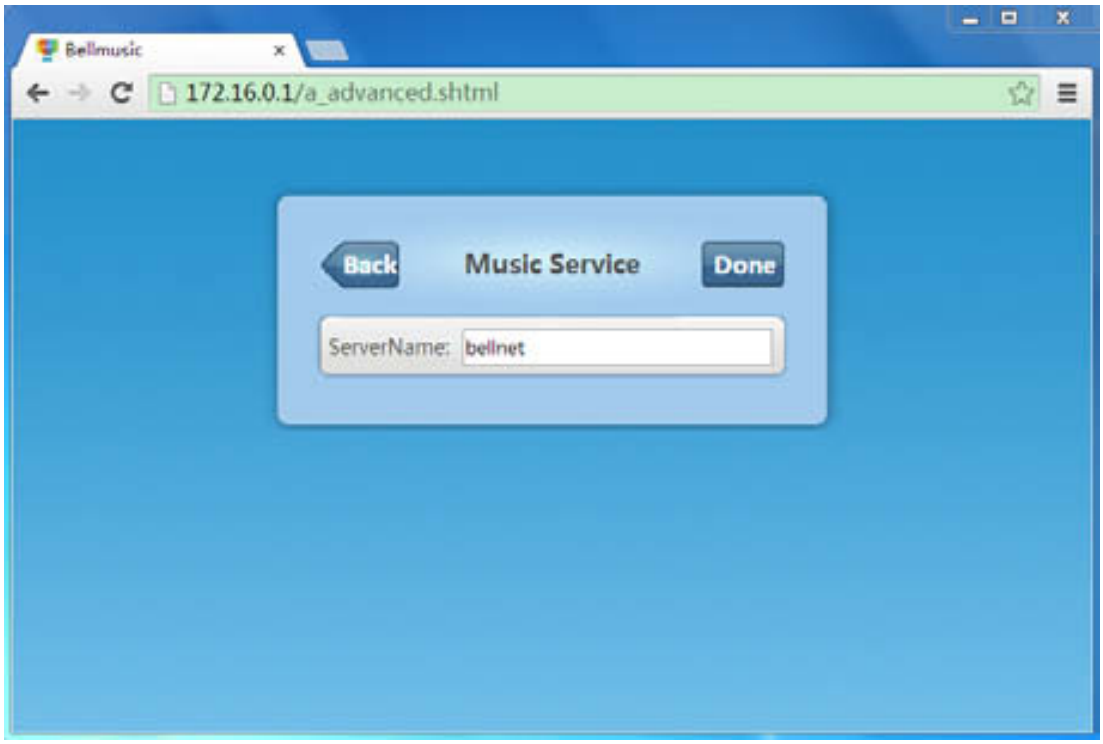


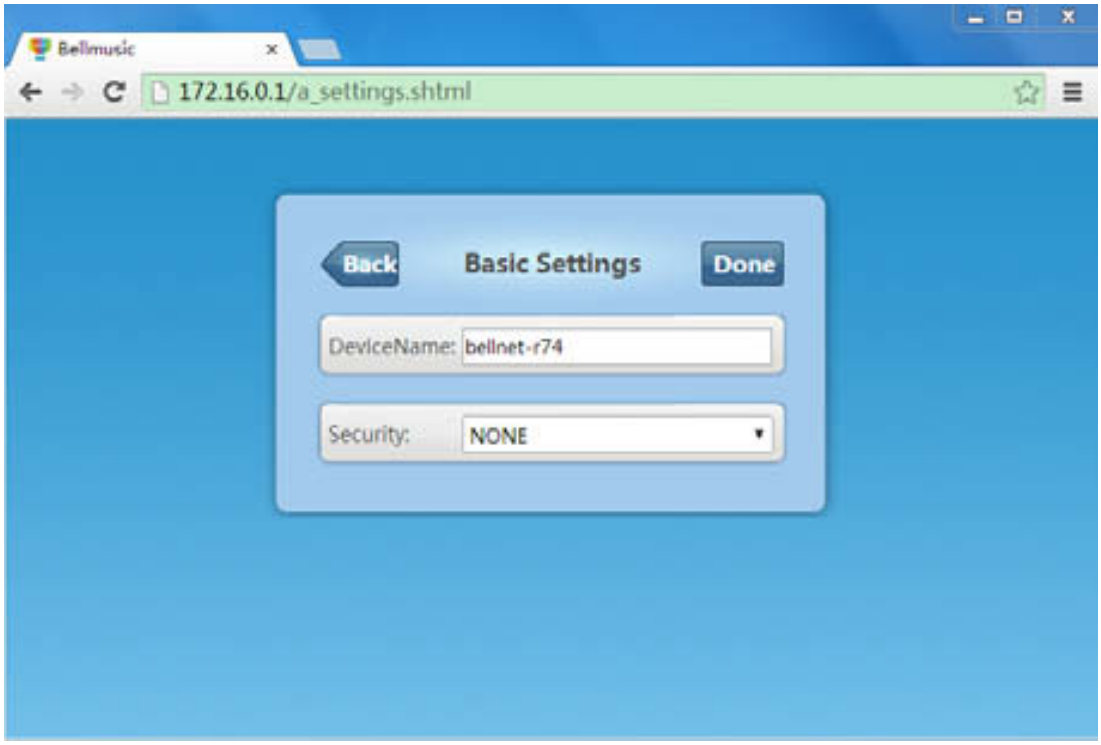
Figure 2-7 ***Click Yes, then refresh the page. Then Server Name is changed successfully.***



2.2.2 Basic Settings

In this function, you can change the **MB8800 Router's WIFI SSID**.
Also, you can set the encryption mode and password for the WIFI.
Click **"Basic Settings"**, to enter the management page *(Figure 2-8).*
Click **"Back"**, to go back to MB8800 configuration main page *(Figure 2-2).*

Figure 2-8 ***Basic Settings screen***



Currently:
The WIFI SSID is bellnet-r74.
Encryption Mode is NONE (no encryption).

You can change the Device Name (Known as WIFI SSID):

1. I**nput the Device Name** which you want in the field. *(Figure 2-9)*
2. **Click "Done"** *(Figure 2-10)*, after **20** seconds, it will pop-up a window *(Figure 2-11)*: Please refresh the page or reconnect your device.
3. **Click "Yes", and refresh** the page. Then the Device Name has been changed successfully. *(Figure 2-12)*

Figure 2-9 ***Input the Device Name you want in field***

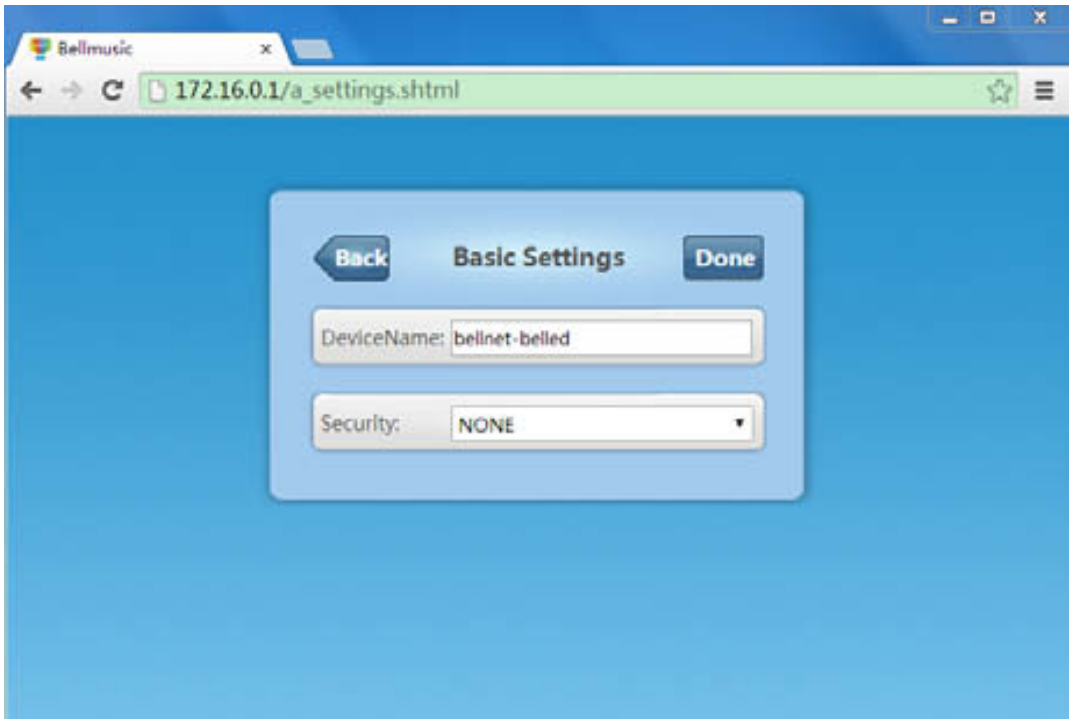


Figure 2-10 ***Click "Done"***

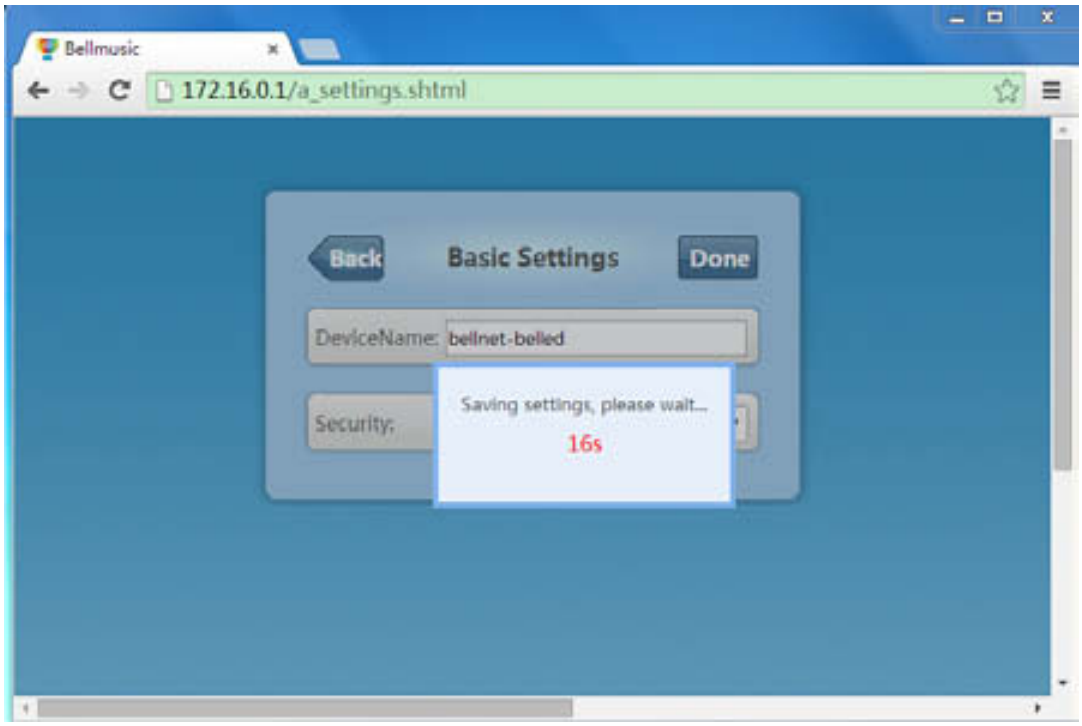


Figure 2-11 ***After 20 seconds, it will pop-up a window.***

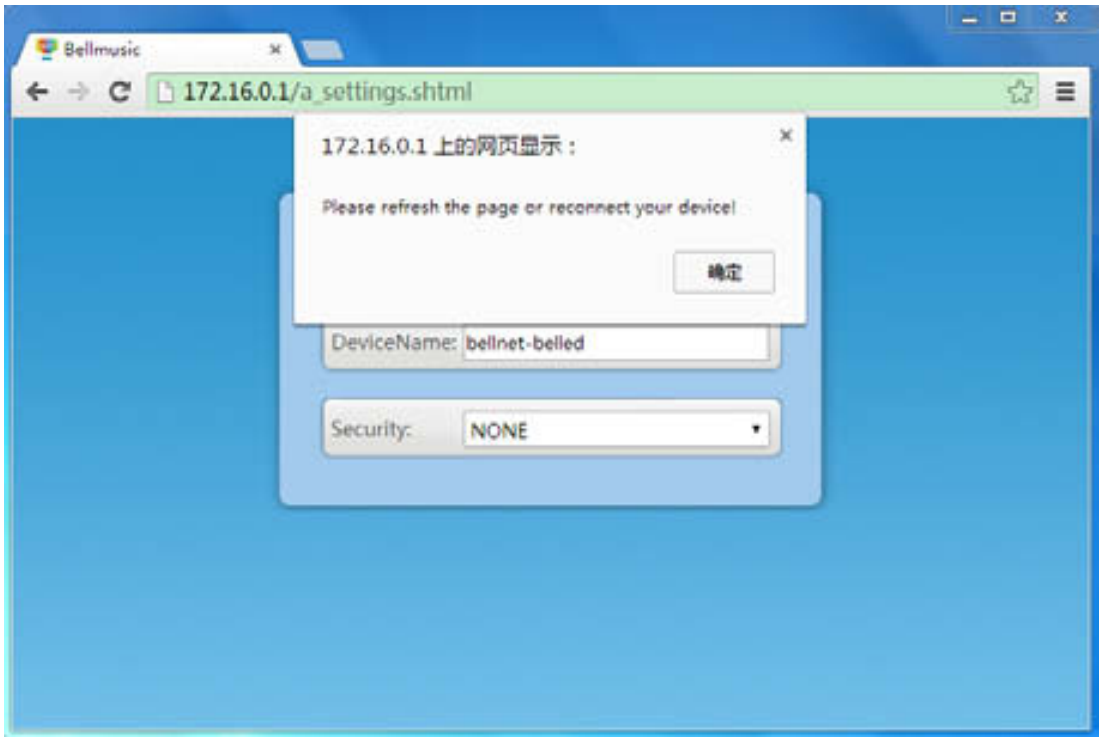
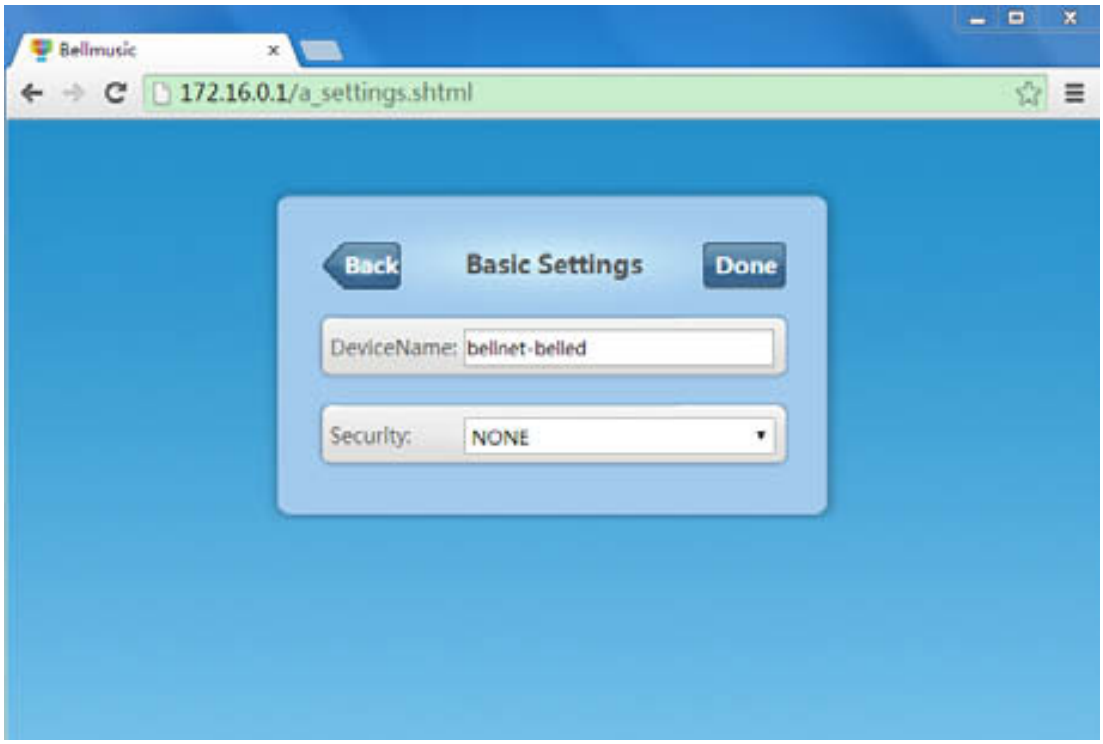


Figure 2-12 ***Click Yes, and refresh the page. The Device Name is changed successfully.***



In Security drop-down list, there're 4 encryption modes: *(Figure 2-13)*
NONE; WPA; WPA2; WPA/WPA2.

You can change the WIFI encryption mode:

1. **Choose one encryption mode** (e.g. WPA) in Security drop-down list.
2. **Input the Password**, **Confirm Password**. *(Figure 2-14).*

   (Please note: password should not be less than 8 characters.)
3. **Click "Done"** *(Figure 2-15)*, after **20** seconds, it will pop-up a window *(Figure 2-16)*:

   Please refresh the page or reconnect your device.
4. **Click "Yes", and refresh** the page. Then the security mode has been changed successfully. *(Figure 2-17)*

Figure 2-13 ***There're 4 encryption modes:***

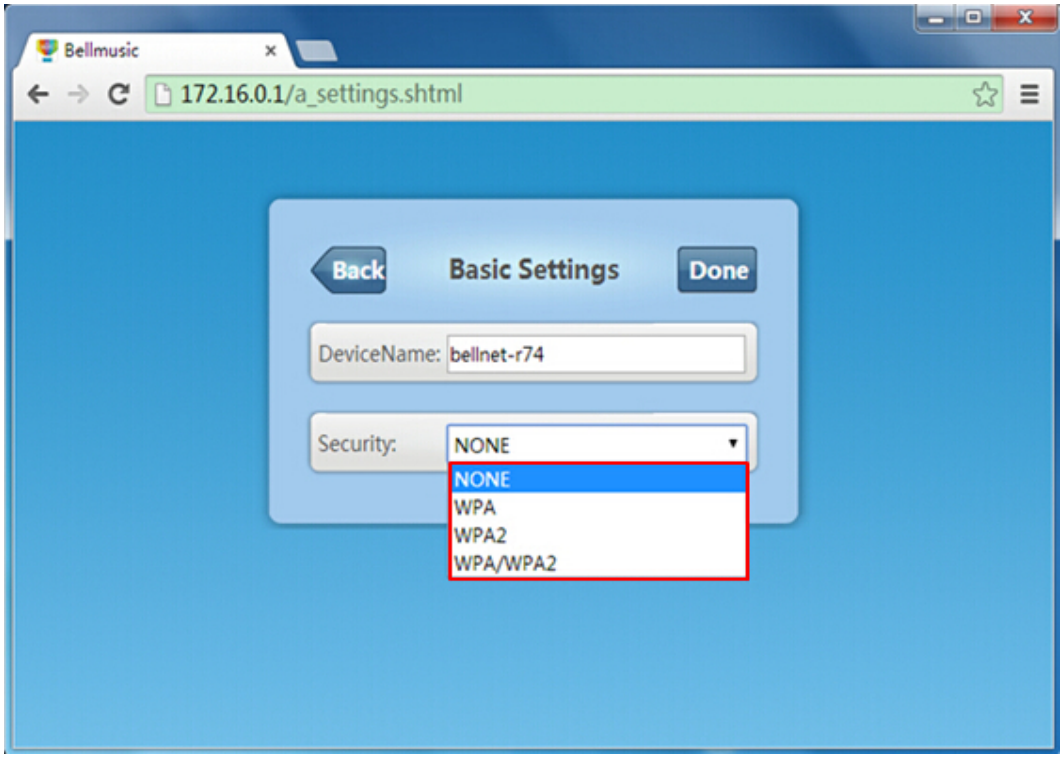


Figure 2-14 ***Input the Password & Confirm Password***

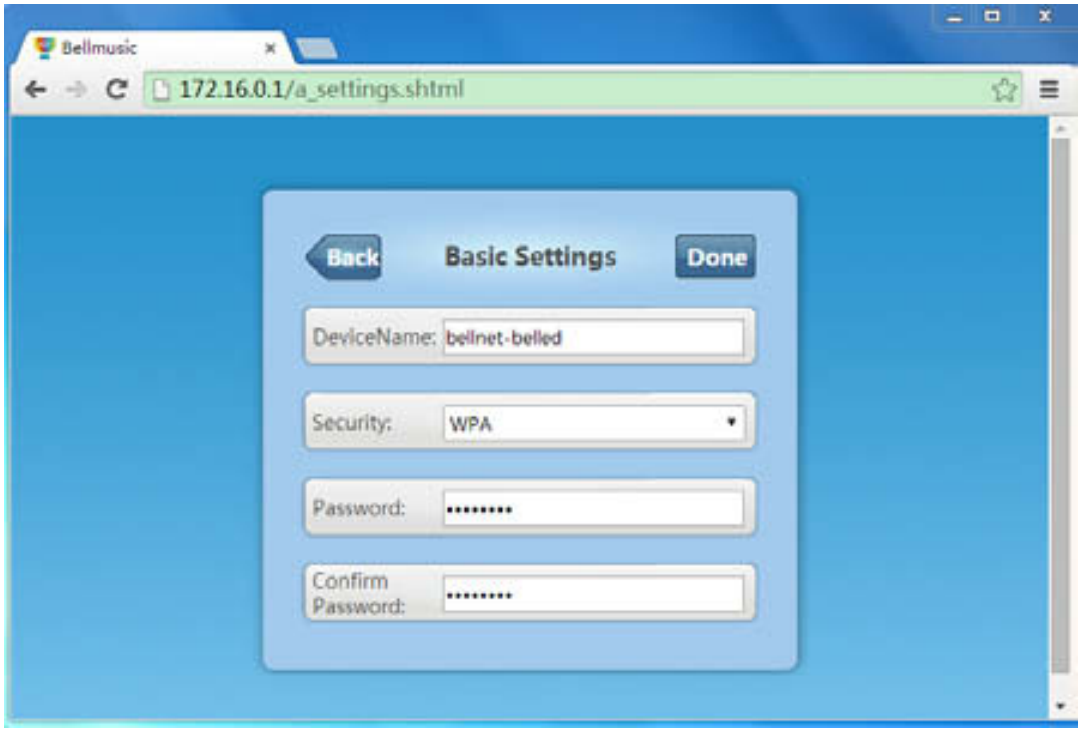


Figure 2-15 ***Click "Done"***

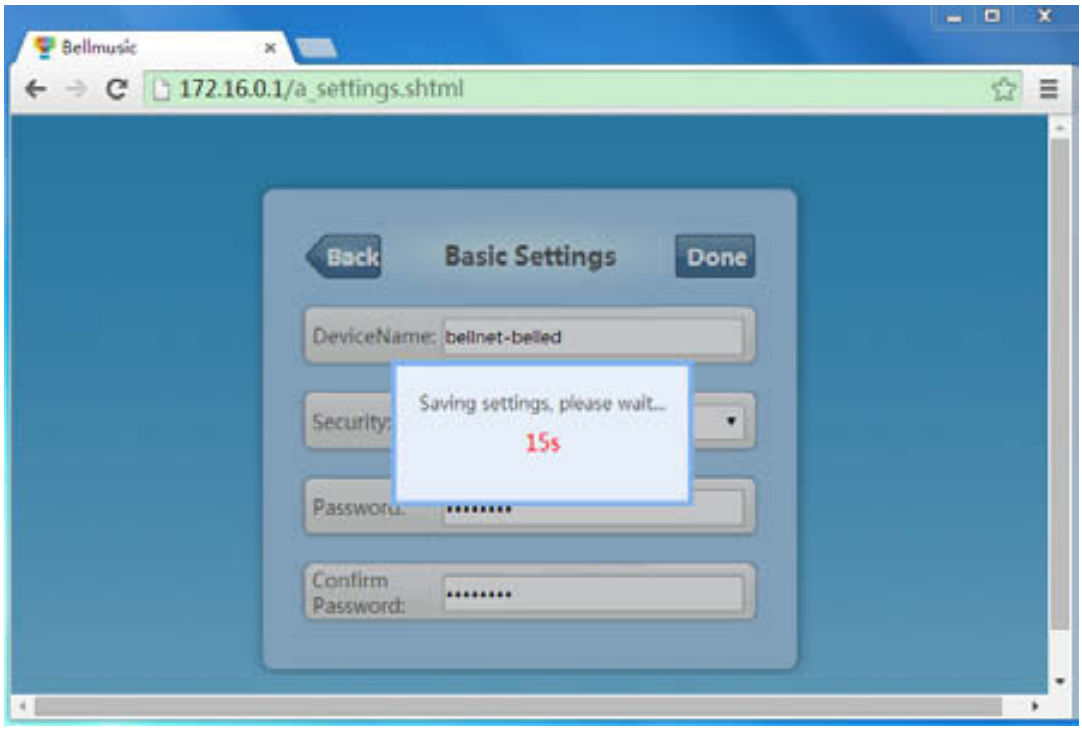


Figure 2-16 ***After 20 seconds, it will pop-up a window.***

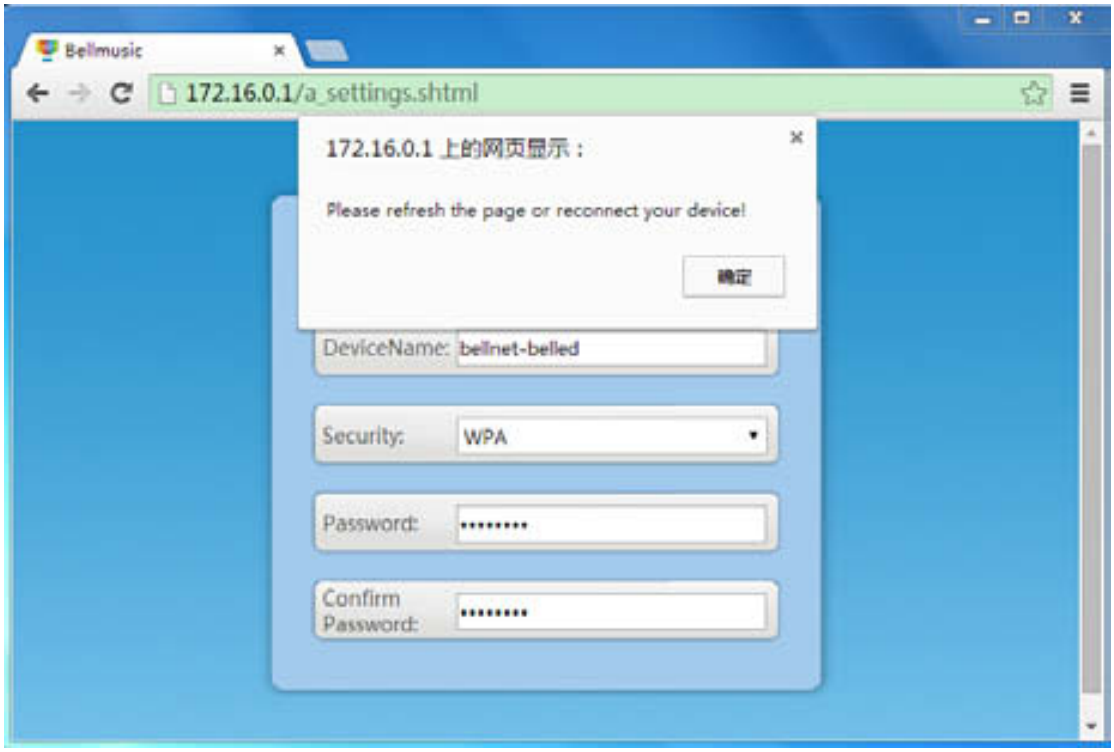
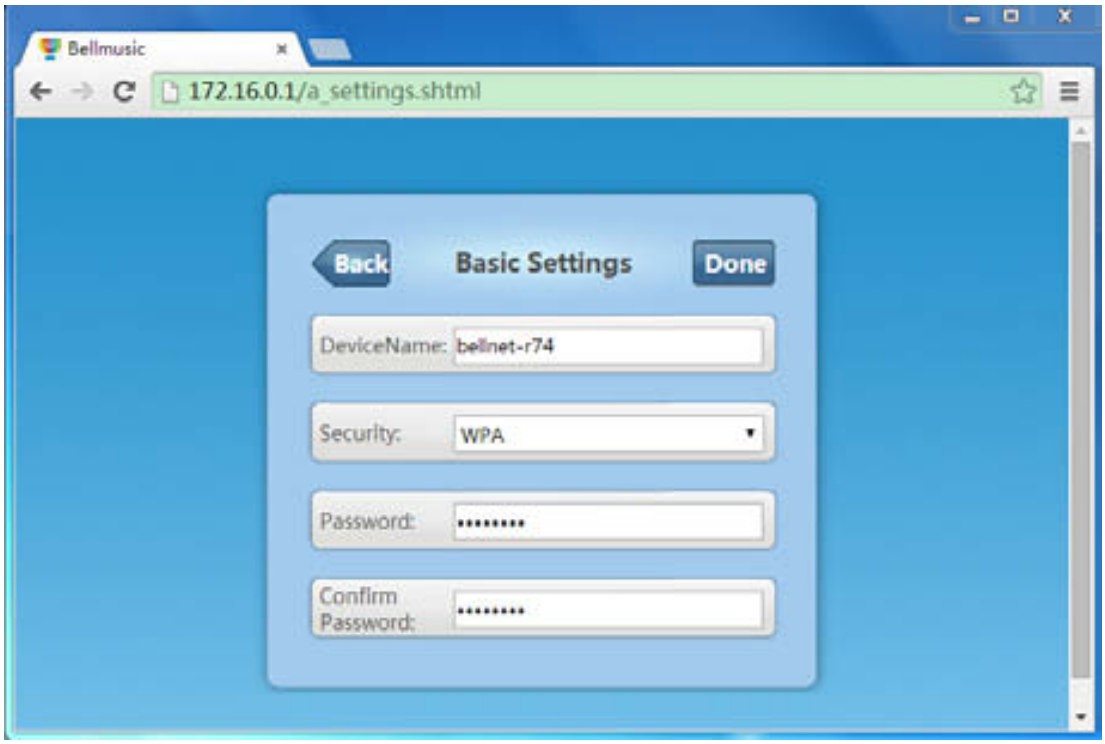


Figure 2-17 ***Click Yes, and refresh the page. The security mode is changed successfully.***



2.2.3 Internet Connection

This function can make MB8800 Router connect to other WIFIs.
It will search all the nearby WIFI SSIDs.

You can connect to the nearby WIFI SSID:

1. **Click "Internet Connection"**, to enter the screen *(Figure 2-18).*

   By default, the wireless access is **ON**. You can click **OFF** to close wireless access.

   Please note: The page needs some time to search the nearby WIFI SSIDs.

2. After a few seconds, it will **display the nearby WIFI SSIDs** *(Figure 2-19).*

3. **Click the SSID** which you want to connect to (For example: Xiaomi_ADF1).

   Then it will **pop-up a window** to let you input the password for the SSID *(Figure 2-20).*

4. **Input the password** of the SSID, then **click "OK"** *(Figure 2-21).*

   (If you don't want to connect, then click "Cancel".)

5. After **25** seconds *(Figure 2-22)*, it will scan the SSIDs again *(Figure 2-23).*

6. After a few seconds, it displays all the nearby SSIDs again.

   Refresh the page, then you'll see page *(Figure 2-24).* Connect successfully.

Figure 2-18 ***Scanning the nearby WIFI SSIDs***

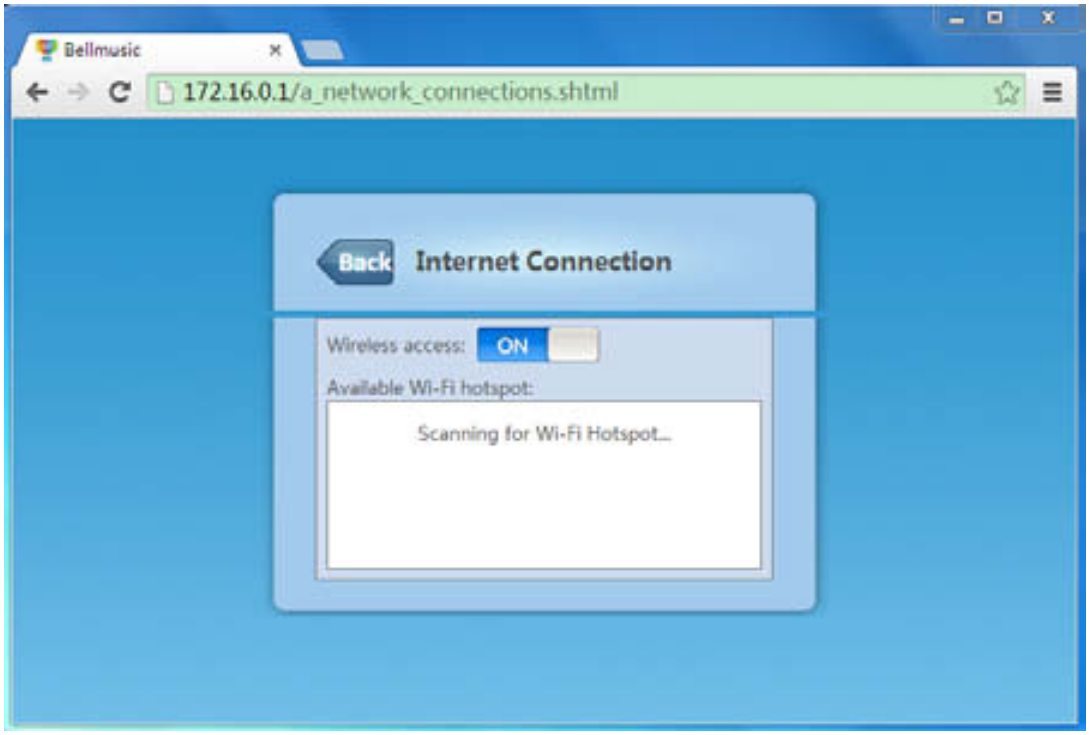


Figure 2-19 ***The nearby WIFI SSIDs***

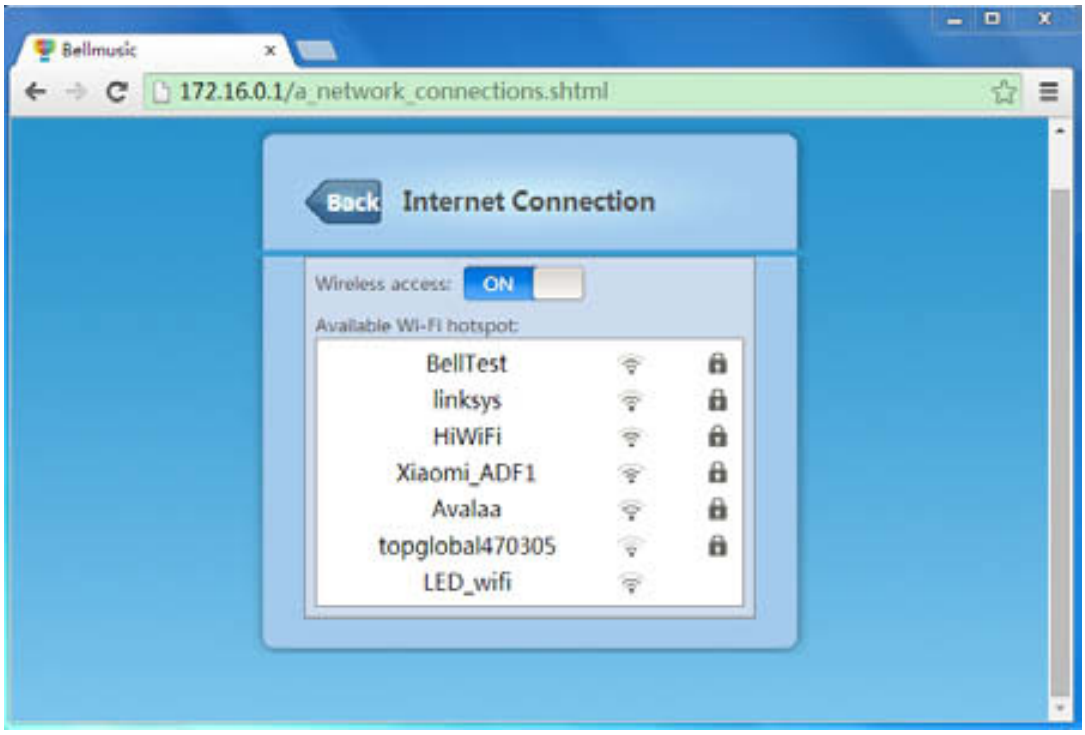


Figure 2-20 ***Click "Xiaomi_ADF1", it will pop-up a window.***

Figure 2-21 ***Input the WIFI password of "Xiaomi_ADF1"***

Figure 2-22 ***Wait for 25 seconds***

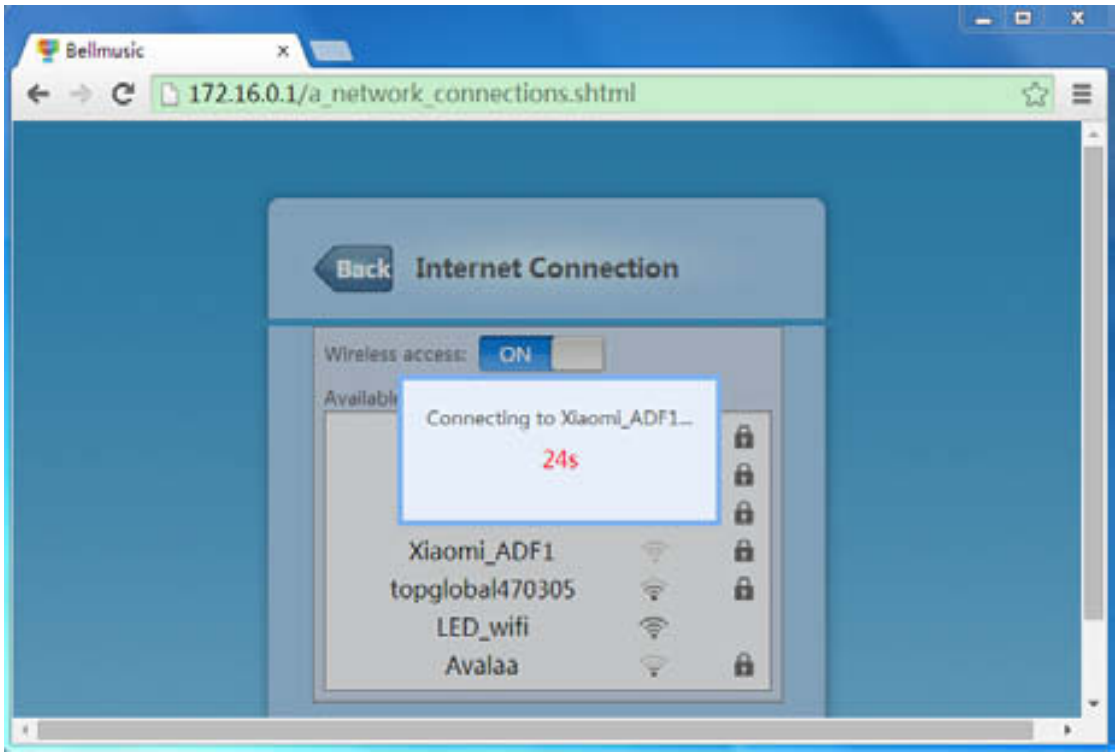


Figure 2-23 ***Scanning for nearby WIFI SSIDs again***

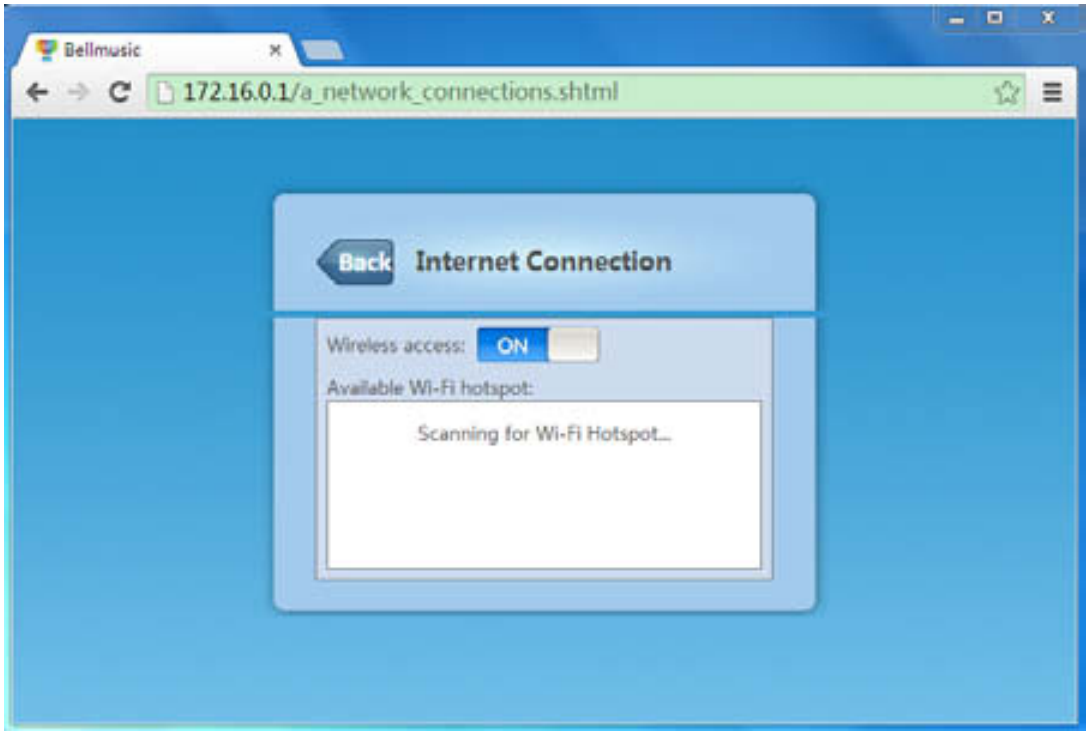
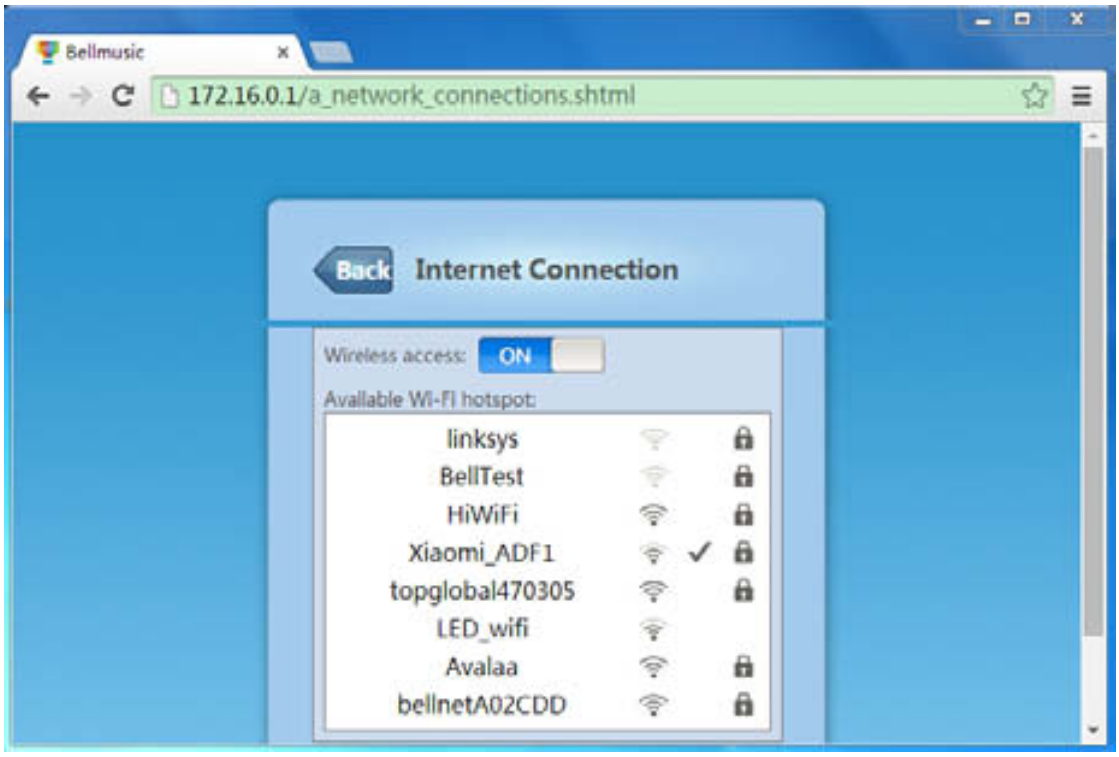


Figure 2-24 ***After a few seconds, MB8800 displays all the nearby SSIDs again. Refresh the page, then you'll see Xiaomi_ADF1 Connect successfully.***



2.2.4 Upgrade Firmware

You can upgrade the MB8800's firmware in this function:

1. **Click "Upgrade Firmware"**, to enter the screen *(Figure 2-25)*.

   (If you don't want to upgrade firmware, you can click "Back" to go back to configuration main page.)

2. **Click "Browse"**.

   It will pop-up a window to let you select the firmware file in PC.

   Choose the firmware file which you want to upgrade. *(Figure 2-26)*

3. **Click "Open"**, you can see the selected firmware file on page. *(Figure 2-27)*

4. **Click "Upgrade Firmware"**.

   It will pop-up a window: File uploaded success! Continue to upgrade? *(Figure 2-28).*

5. **Click "Yes"**, to proceed the upgrading. *(Figure 2-29).*

   If you want to quit the upgrading, click "取消"(Cancel).

6. When the process is 100%, **refresh** the page. *(Figure 2-30).*

   The new firmware has been upgraded successfully.

Figure 2-25 ***Upgrade Firmware screen***

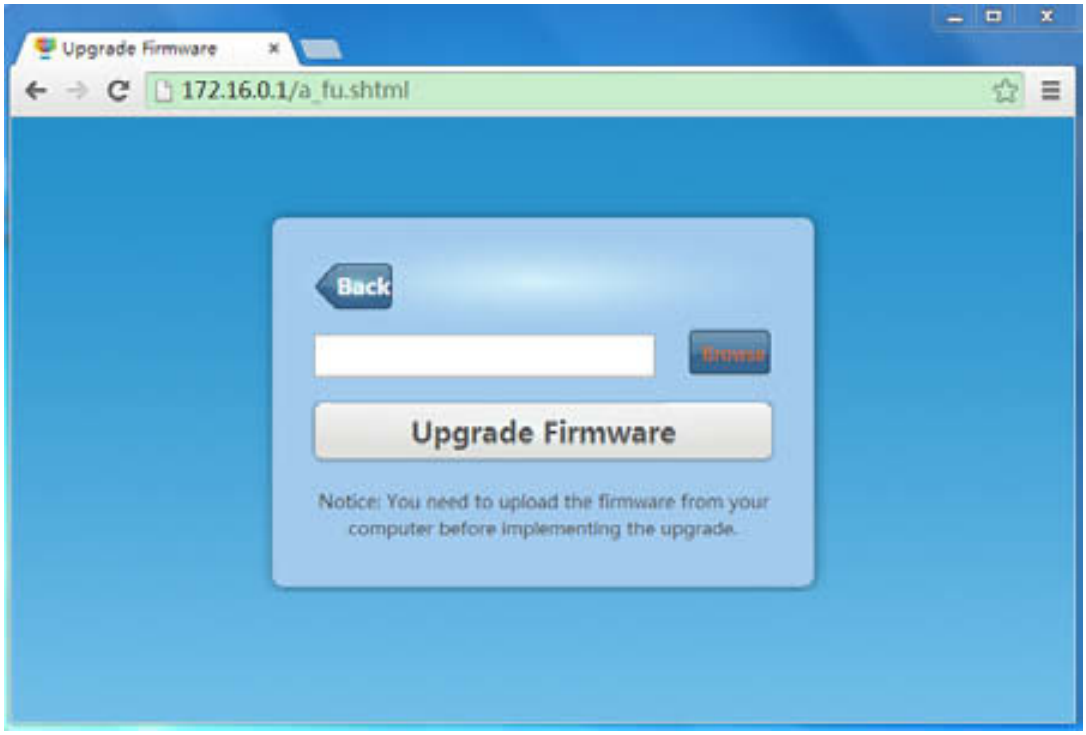


Figure 2-26 ***Select the firmware file in PC***

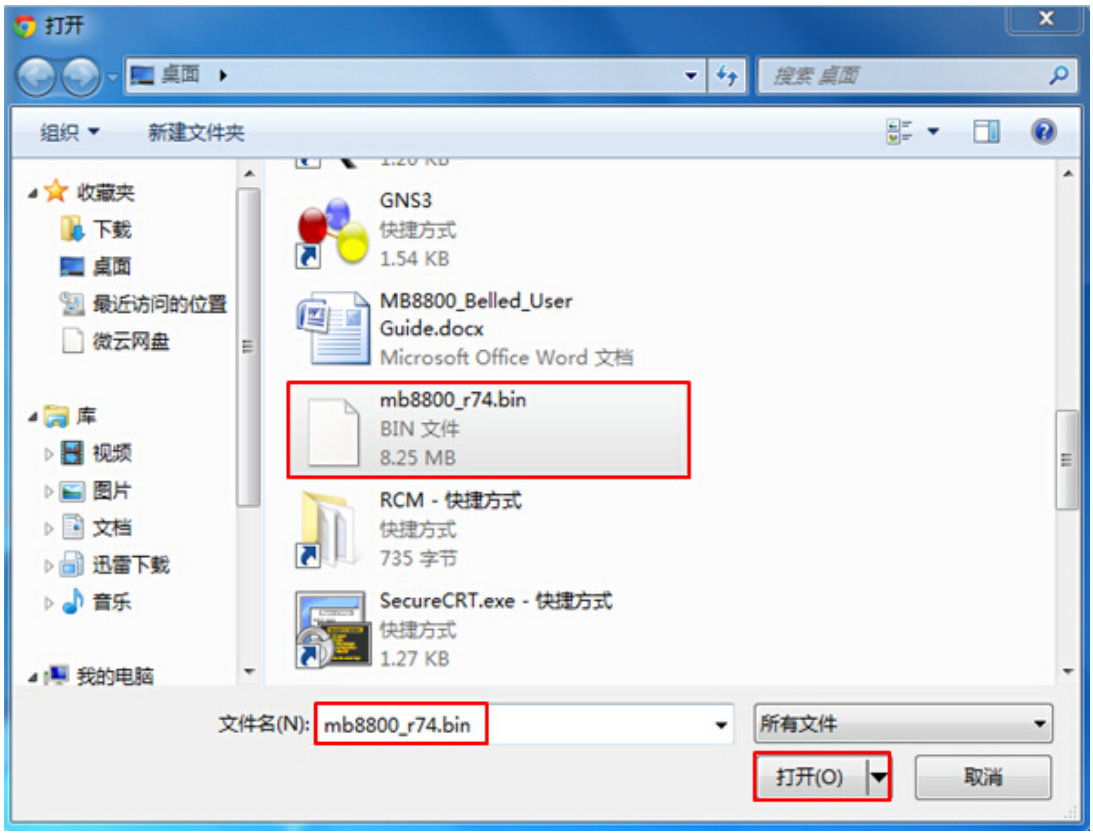


Figure 2-27 ***You can see the selected firmware file on page.***

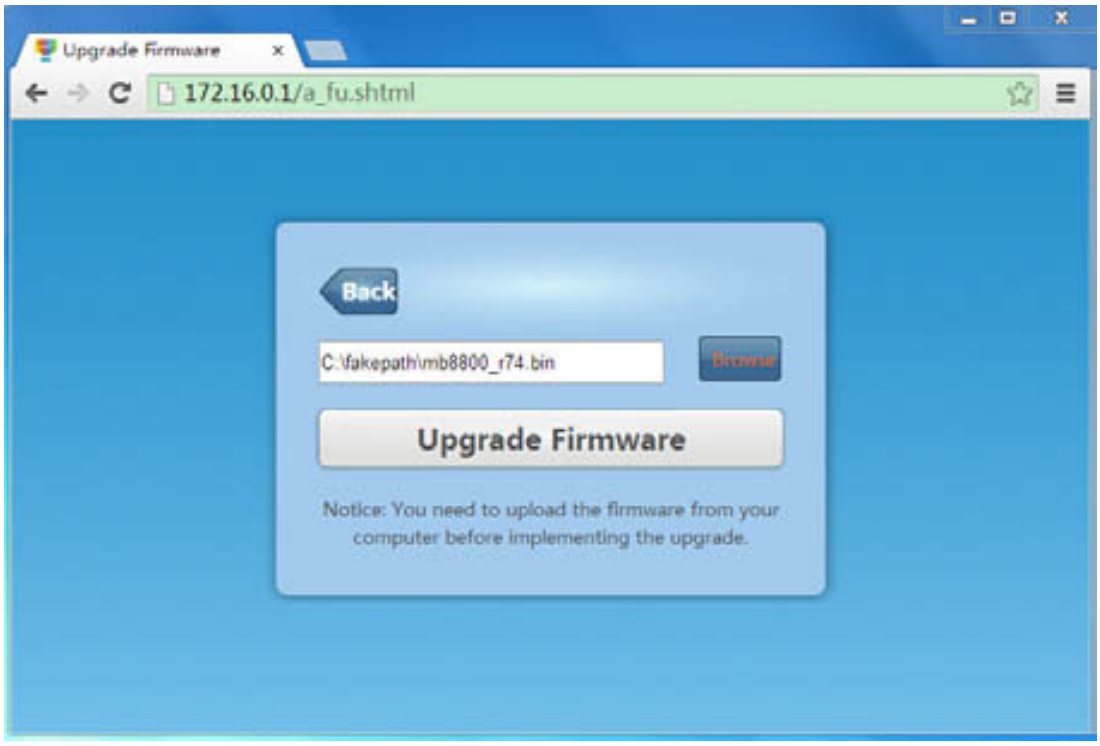


Figure 2-28 ***Click "Upgrade Firmware", it will pop-up a window.***

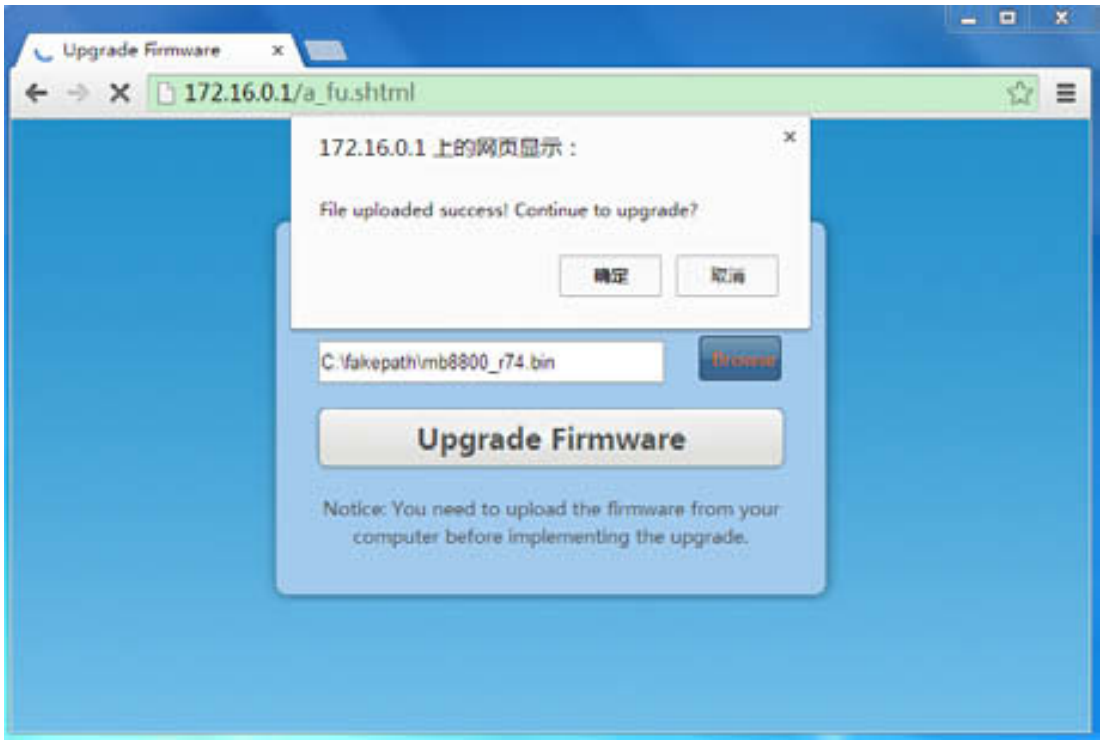
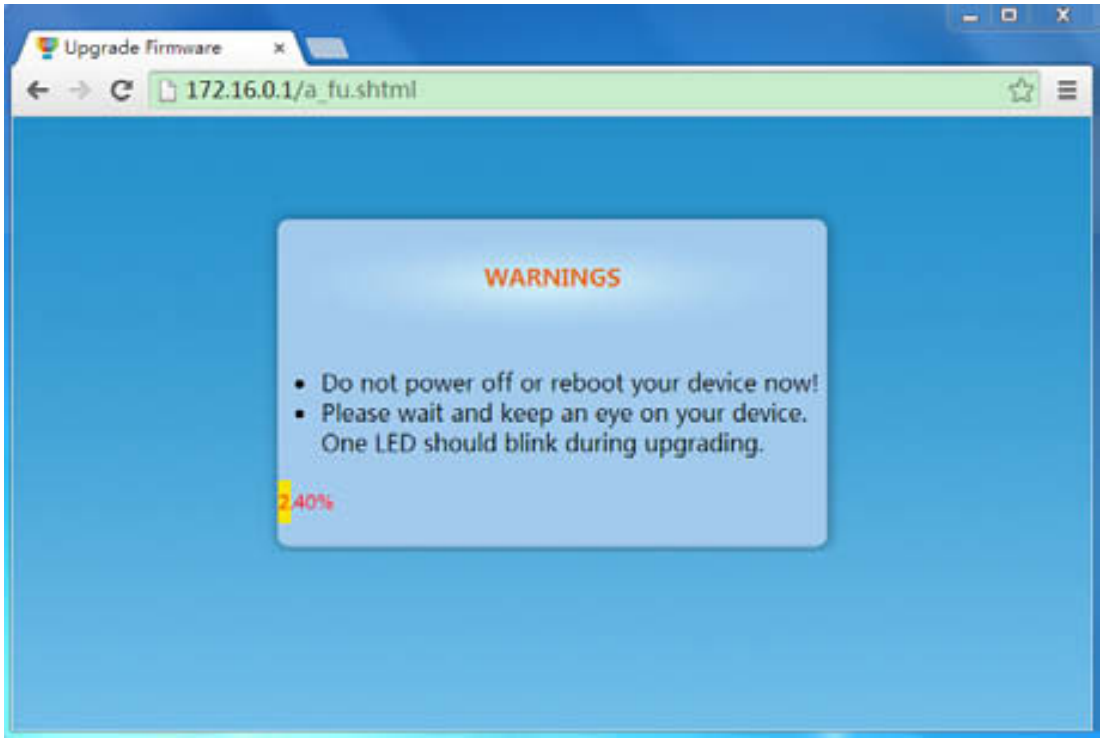


Figure 2-29 ***Click Yes, upgrade will proceed.***



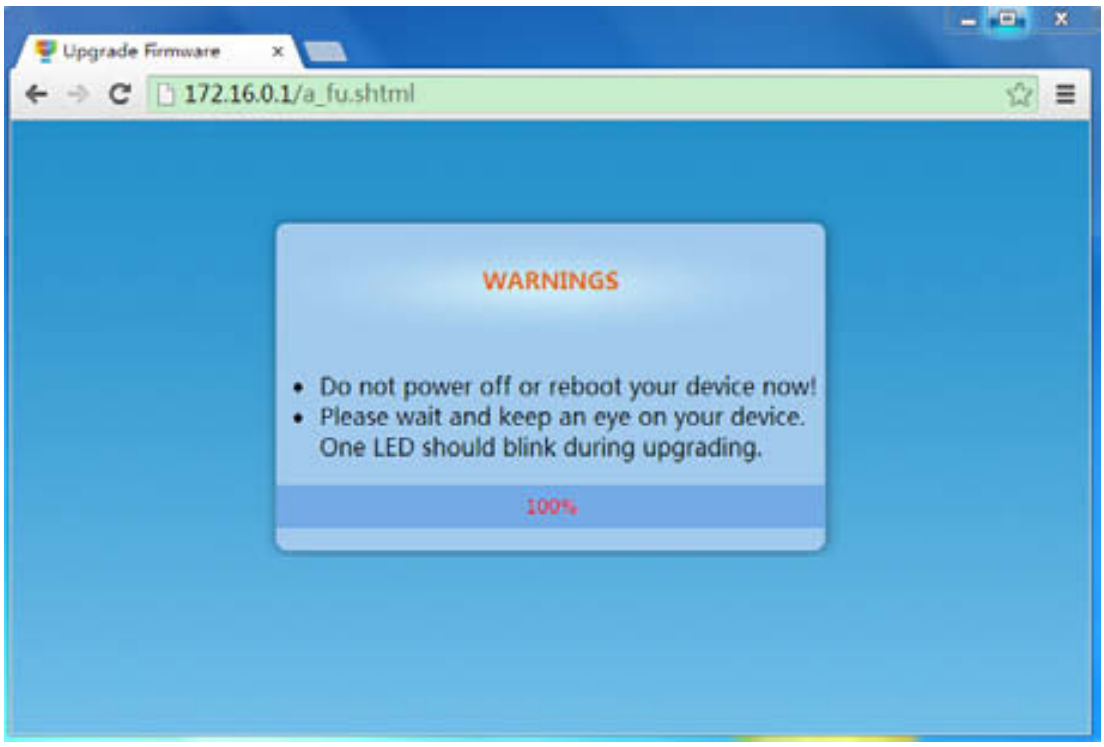
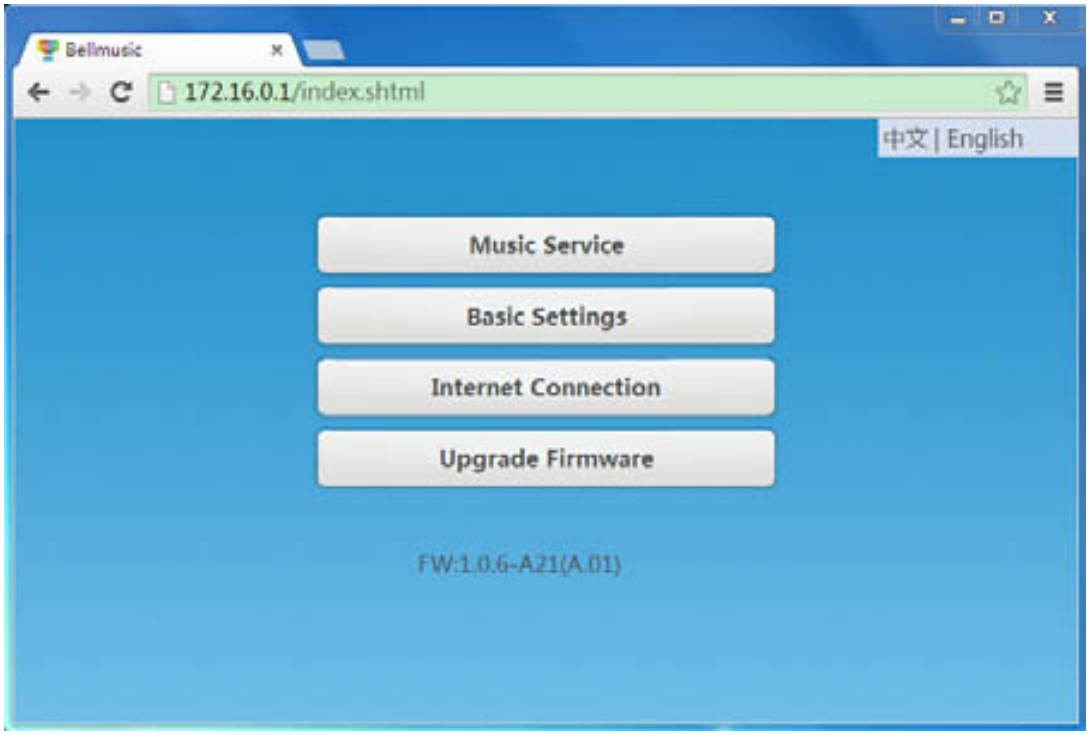


Figure 2-30 ***When process is 100%, refresh the page. New Firmware has been upgraded.***



3 Belleds in mobile

In this section, we'll introduce how to use the "belleds" application in mobile.

3.1 Preparation (Hardware & Software)

Hardware:

1. Make sure you have connected the cables **(Refer to 1.2 Connection, Page 3)**.
2. Make sure you have twisted the LEDs and power on.

Software:

1. Make sure in **mobile WLAN**: *(Figure 3-1)*.

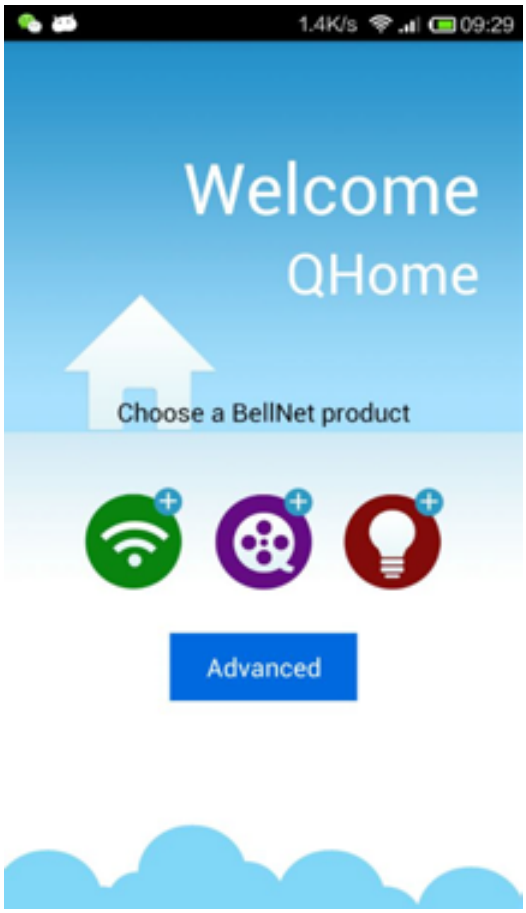
   You have connected to **WIFI SSID (Known as the Device Name):** belled-r74.

   (**Device Name** is set in Basic Settings of MB8800 Configuration home page,

   Refer to 2.2.2 Basic Settings, Page 9)
2. Install the application of **"belleds"** in your mobile (for Android System).
3. Click the logo of **"belleds"** in your mobile, to enter MB8800 belled mobile interface *(Figure 3-2)*.

Figure 3-1 ***In mobile WLAN: Connect to Device Name: belled-r74***

Figure 3-2 ***MB8800 belled mobile interface***



3.2 Configuration in Mobile

Click the logo , to enter the MB8800 configuration home page *(Figure 3-3)*.
It is same as the configuration page in PC.
(Refer to 2.2 Configuration in detail, Page 6)

Figure 3-3 ***MB8800 configuration home page in mobile***

3.3 Play Music

3.3.1 Music List

Click the logo , to enter the **belleds music list**. *(Figure 3-4)*

It displays the **Music List** in your mobile.

Figure 3-4 ***belleds music list***

3.3.2 Music Play

1. Music Play Page

Click one song in Music List to play, to enter the music play page *(Figure 3-5).*

At the same time, the song you selected is playing.

Figure 3-5 ***belleds music play page***

means play the music.

means music pause.

means stop the music.

means search the renderers in your mobile (such as MB8800, BubbleUPnP). *(Figure 3-6).*

means you can select the other music in mobile.

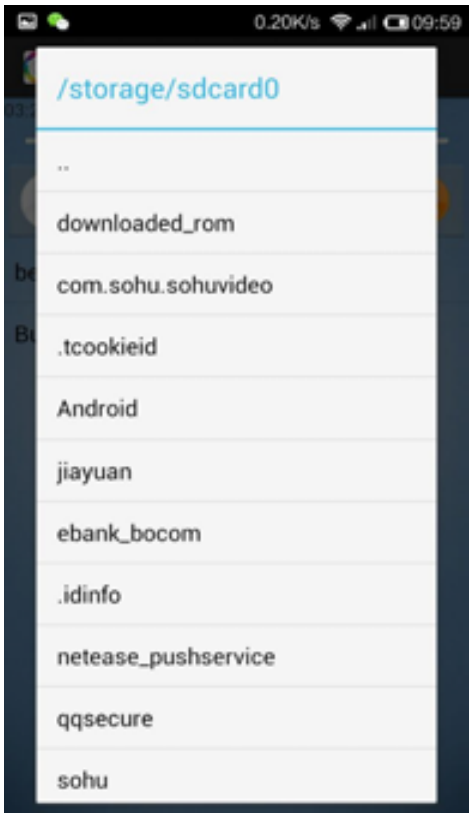
Click it, it will pop-up a window to let you find your music *(Figure 3-7).*

If you choose one new song, then it will be moved to now playing music list.

Click , it will play the song you selected.

Figure 3-6 ***Click , it will search the renderers in your mobile.***

Figure 3-7 ***Click , pop-up a window to let you find your music in mobile.***



2. Play on Local/Remote Device

Click Renderer Name to control the playing on local/remote device.

(Please Note: MB8800 Renderer Name is the Server Name.

Refer to 2.2.1 Music Service, Page 6)

Play on Local Device means music is playing from mobile itself.

Play on Remote Device means music is playing from remote device (earphones or speakers which have been connected to MB8800 by audio cables).

For example:

Current MB8800 Renderer Name is bellnet-a02dd7.

Click “bellnet-a02dd7”, music will play on local device. *(Figure 3-8)*

Click “bellnet-a02dd7” again, music will play on remote device. *(Figure 3-9)*

If you click it the third time, then music will play on local device again.

It is circulating.

Figure 3-8 ***Play on Local Device***

Figure 3-9 ***Play on Remote Device***

3.3.3 Music & LEDs synchronize

Once the music is playing, you will see the LEDs are blinking synchronously with the rhythm of your music which is in your mobile.

Music and LEDs are synchronous.

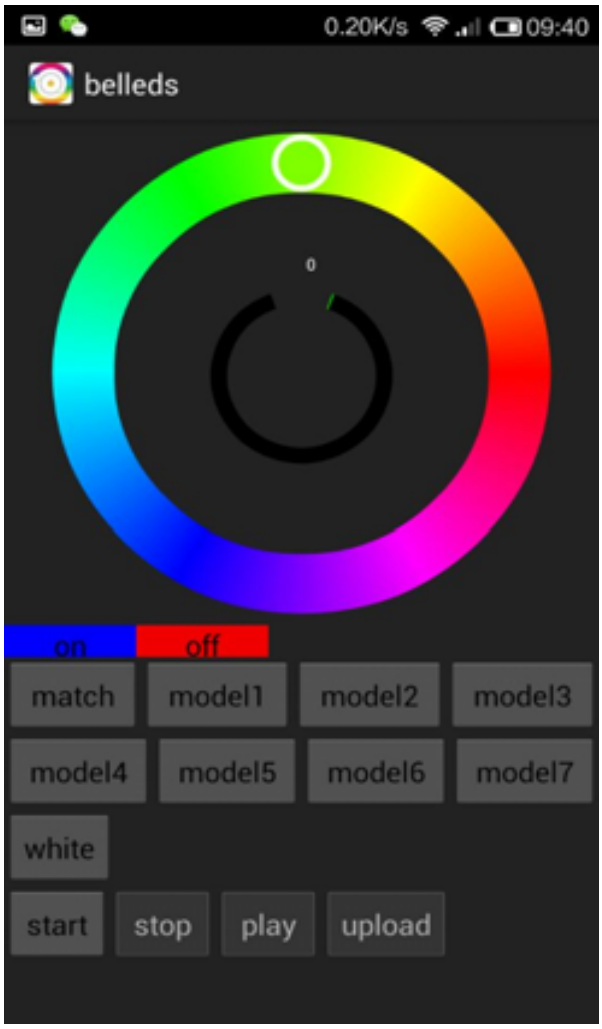
The music play, LEDs will blink synchronously with the rhythm.

The music pause/stop, LED will stop changing color (stay in one color).

3.4 LED control

Click the logo , to enter the LED control interface. *(Figure 3-10)*

Figure 3-10 ***LED control interface***



3.4.1 ON and OFF

By default, the LEDs status is on.

Click **“off”**, the LEDs will be turned off.

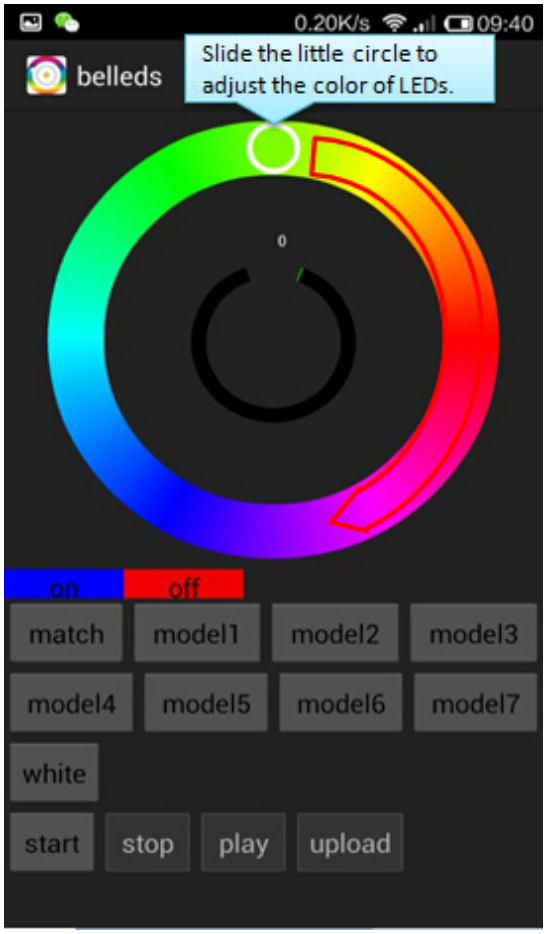
Click **“on”** , the LEDs will be turned on.

3.4.2 Adjust Color of LEDs

Slide the little circle , to adjust the color of LEDs. *(Figure 3-11)*

There’re hundreds of colors you can choose.

Figure 3-11 ***Slide the little circle , to adjust the color of LEDs.***



FCC IC warning 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this 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.

To comply with FCC RF exposure compliance requirements, this grant is applicable to only mobile configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.