

## Edimax EW-7303APn v2 Wireless Access Point

# How to extend the wireless connection using 2 units of EW-7303APn v2?



#### **Application Diagram**



Note: The distance between Building 1 and Building 2 is depending on environment. For your information, a case study showed that the repeater is working fine with distance of 150 meters (without obstacles) in between the 2 buildings. Please note that EW-7303APn v2 comes with a 12dBi directional antenna, the front panel of EW-7303APn v2 must face each other.



### **Configuration/Setup**

- 1) The **1**<sup>st</sup> **EW-7303APn v2 (at Building 1, 1**<sup>st</sup> **unit)** that is wired with RJ45 to the main router, set it up as a Gateway>AP mode.
  - Connect router's LAN to the WAN port of EW-7303APn v2.
  - Connect a computer to the LAN port of EW-7303APn v2 using an Ethernet cable. Login to EW-7303APn v2 on 192.168.2.1. Open the Internet Explorer, at the address bar, type 192.168.2.1 and press Enter. Login with default username/password, admin/1234. Click OK.

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	MV Partners, Loyalty,	1&1 Control Panel	Cogin		
Windows Security	swappage	-	<b>_</b>		
The server 192.168.2.1 at ADSL Router/Modem requires a username and password. Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).					
admin ••••] Remember my credentials					
		OK Cancel			



> Once login, click Setup Wizard at the left hand menu> Then, click Next.



Step 1: Select DHCP (Auto Comfit), leave host name blank> Click Next.

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	$\square$	60. M	
Site Contents Bature Winner Operation Mode	This Router is for home network	Setup Wizard ing. The 'Setup Wizard' will guide you to cr (internet Service Provider).	onfigure the router to connect to your ISP
VAN LAN DHCP clients VPN Passthrough Wireless Settings Basic	Si WAN Connection Type:	tep 1. Configure Internet Con	nection
WPS	DHCP Mode	Static Mode (fixed IP)	
Firewall     MAC/IP/Port Filtering     Port Forwarding	Hostname(optional)	DHCP (Auto Config) PPPOE (ADSL) L2TP PPTP	
System Security     System Security     Content Filtering     Management     QoS     Upload Firmware     Settings Management     Status	Back	Next Cancel	Apply



Step 2: Configure Wireless setting> enter your SSID (wireless network name of the 1<sup>st</sup> EW-7303APn v2), select an unused channel number in that environment. Security mode: select WPA2-PSK (AES), enter your wireless password/key\* into Pre-Shared key. Click Apply to finish.

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Site Contents Supportion Mode Internet Settings WAN LAN	This Router is for home networking connect to	Setup Wizard The 'Setup Wizard' will guide you to configure the router to your ISP(Internet Service Provider).	
DHCP clients VPN Passthrough Wireless Settings Basic	Step 2. Co Wireless Settings	onfigure Wireless Settings	
WPS	Network Mode	802.11B/G/N +	
Firewall MAC/IP/Port Filtering	Frequency (Channel)	2412MHz (Channel 1)  Current Channel: 1	
the start of the start and starting	Network Name (SSID)	YourWirelessName	
Port Forwarding		○ 20 ● 20/40	
<ul> <li>Port Forwarding</li> <li>DMZ</li> <li>System Security</li> </ul>	Channel BandWidth	© 20 @ 20/40	
Port Forwarding DMZ System Security Content Filtering Administration Management QoS	Channel BandWidth Security Mode	© 20  © 20/40  Disable  Disable  OPENWEP SHAREFDWEP	

Step 2. Configure Wireless Settings

Wireless Settings			
Network Mode	802.11B/G/N -		
Frequency (Channel)	2412MHz (Channel 1) -	Current Channel: 1	
Network Name (SSID)	YourWirelessName		
Channel BandWidth	© 20 @ 20/40		
Security Mode	WPA2-PSK -	Enter your wireless key*	
Pre-Shared Key		here. This is the wireless	
		key you use when you	
Back Next	Cancel	connect to your EW- 7303APn v2 wirelessly.	

\*You choose your own wireless password/key, it must be in between 8-63 characters. After configuring the wireless key, the wireless connection of EW-7303APn v2 is secured by your own wireless password/key.



Then, select Reboot Now.



- 2) For the **2<sup>nd</sup> EW-7303APn v2 (at Building 2, 2<sup>nd</sup> unit),** set it up using repeater mode.
- Connect a computer (use a standalone computer, do not connect this computer to any other network while setting this up) to the LAN port of EW-7303APn v2 using an Ethernet cable. Do not connect EW-7303APn v2 to any other devices/router.
- Change the IP address of the 2<sup>nd</sup> EW-7303APn v2 from 192.168.2.1 to 192.168.2.2, so that it won't cause conflict with the 1<sup>st</sup> unit. To do this, login to EW-7303APn v2 on 192.168.2.1. Open the Internet Explorer, at the address bar, type 192.168.2.1 and press Enter. Login with default username/password, admin/1234. Once login, click Internet Settings>LAN> change IP address to 192.168.2.2, Click Apply to save the setting.



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		*	
Site Contents Setup Wizard Operation Mode Internet Settings	Local Area Network (L You may enable/disable networking fur	AN) Settings	ters as your wish.
DHCP clients	LAN Setup		
Wireless Settings	MAC Address Hostname(optional)	80:1F:02:75:B9:9C	Change IP Address to
WPS	IP Address	192.168.2.2	192.168.2.2
MAC/IP/Port Filtering	Subnet Mask	255.255.255.0	
Port Forwarding	DHCP Type	Server •	
System Security	Start IP Address	192.168.2.100	
Administration	End IP Address	192.168.2.200	
QoS	Lease Time	86400	
Upload Firmware     Settings Management	802.1d Spanning Tree	Disable -	
	LLTD	Enable -	
System Log	IGMP Proxy	Disable 👻	
	UPNP	Enable -	
	Router Advertisement	Disable -	
	PPPoE Relay	Disable •	
	DNS Proxy	Disable •	
	App	Dly Cancel	

After clicking Apply, wait until the screen automatically change to the main status screen as below.

Setup Wizard Operation Mode Internet Settings Wireless Settings	This page show the current	This page show the current status and some basic settings of the device.		
Firewall	System Information			
Administration	Firmware Version	7303APn v2.0		
Administration	Firmware Version Model Name	7303APn v2.0 EW-7303APn v2		
Administration	Firmware Version Model Name System Up Time	7303APn v2.0 EW-7303APn v2 0 days, 0 hours, 6 mins, 54 secs		



Then, continue the configuration. Click Wireless Settings> Basic>change Wireless Mode to Repeater.

Site Contents Setup Wizard Operation Mode Internet Settings	Basic Wireless Settin You could configure the minimum n Network Name (SSID) and Channel setting items.	Basic Wireless Settings You could configure the minimum number of Wireless settings for communication, such as Network Name (SSID) and Channel. The Access Point can be set simply with only the minimum setting items.			
Security	Wireless Network				
······································	Wireless On/Off	Wireless OFF Current Status:Radio ON			
Administration	basic rfswitchn	© External   Internal			
	Wireless Mode	AP Select Repeater			
	Wireless Band	Repeater V			
	SSID	AP+WDS			
	Broadcast Network Name (SSID)				

- You can change the SSID. This SSID is the wireless network name of the 2<sup>nd</sup> EW-7303APn v2. We recommend you to use a different SSID so that you can identify the 1<sup>st</sup> and 2<sup>nd</sup> unit. However (if you wish), you can use the same SSID in both EW-7303APn v2 as long as you are not confused. Click Apply and click 'Reboot later'.
- After that you will see a Site Survey option under Wireless Settings> Click Site Survey>you will see the Site Survey table.

te Contents Setup Wizard	Si	te Survey					
Operation Mode	You	could configure AF	Client parameters he	re.			
Internet Settings Wireless Settings		SSID	BSSID	RSSI	Channel	Authentication	Wireless Mode
Basic Security	0	BTHub3-X5FF	00:81:08:65:03:82	0%	1	WPA1PSKWPA2PSK/TKIPAES	11b/g/h
		73031	80.11.02.75.64.84	100%	1	WPA2PSK/AES	11b/g/n
WPS	0	Edimax7267	80:1f.02:6d14:b4	100%	1	WPA1PSKWPA2PSK/TKIPAES	11b/g/n
Administration	0	BTOpenzone-B	12:81:08:65:03:82	0%	1	NONE	11b/g/n
	0	SMR	00:50:7f.e6:57:c8	0%	6	WPA1PSKWPA2PSK/TKIPAES	11b/g/n
	0	716666	00:1f.1f.b3:ee:70	100%	11	WPA2PSK/AES	11b/g/n
	0	extender	80.11.02.64.34:76	96%	11	WPA2PSK/AES	11b/g/n
	0	Edimax7167	80:1f.02:27:17:cc	81%	11	WPA2PSK/AES	11b/g/n

On the table, you will see all wireless networks available in the environment> choose the 1<sup>st</sup> EW-7303APn v2 you want to repeat from. Check the signal strength (RSSI), make sure it's on 50% or above. Please note that if the signal strength is lower than 50%, the repeater won't be connected. Click Next.



Enter the Wireless Security key of the 1<sup>st</sup> EW-7303APn v2 into 'Pass Phrase'. Click Apply.

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Site Contents Setup Wizard Operation Mode Mireless Settings Basic Security Site Survey WPS Firewall Administration	Site Survey You could configure AP Client	t parameters here.			
	AP Client parameters				
	SSID	73031			
	MAC Address(Optional)	80:1f:02:75:b4:84			
	Frequency(Channel)	2412MHz (Channel 1) Current Channel: 1			
	Security Mode	WPA2PSK			
	Encryption Type	AES 💌			
	Pass Phrase				
	LAN Interface Setup				
	DHCP Type	Disable 💌			
	IP Address	192.168.4.189			
		Scan AP Back Apply			

The repeater settings will be saved. The EW-7303APn v2 will reboot automatically. Please wait.



Once rebooted, the 2<sup>nd</sup> EW-7303APn v2 will be connected to the 1<sup>st</sup> EW-7303APn v2 wirelessly.



Lastly, click on Wireless Settings>Security>This is the wireless security setting of the 2<sup>nd</sup> EW-7303APn v2. By default the wireless security of the 2<sup>nd</sup> EW-7303APn v2 is unsecured. You may want to secure it with your own password/key. You can use the same wireless security setting of the 1<sup>st</sup> unit or setup a different one.



Once done, any devices connected to the 2<sup>nd</sup> EW-7303APn v2 wirelessly or wired will be connected to the internet.

#### FAQ:

 Question: Inside Building 2, the wireless signal is weak because the front panel of the 2<sup>nd</sup> EW-7303APn v2 is facing Building 1, how can I allow wireless connection inside Building 2?

Answer: You can setup another Wireless Access Point inside Building 2. For example, use a EW-7416APn v2 or EW-7228APn, set it up as Access Point mode, connect it using an Ethernet cable to the LAN port of the EW-7303APn v2 in Building 2. Put EW-7416APn v2/EW-7228APn in the room where you require wireless connection in Building 2. Any devices connected wirelessly or wired to EW-7416APn v2/EW-7228APn will be connected to the internet automatically.

 Question: Is the bandwidth (network/internet speed) in the 2<sup>nd</sup> Building same as the 1<sup>st</sup> Building?

Answer: No. Normally, you will find that the bandwidth in the 2<sup>nd</sup> Building is lower than the 1<sup>st</sup> Building using the Repeater. The differences are depending on environment factors. Therefore, testing must be carried out to ensure you have sufficient bandwidth in the 2<sup>nd</sup> Building for your applications, especially if you use devices for video streaming.