Overview of the AP-7602

An AP-7602 is designed for the cost effective deployment of 802.11AC networks. An AP-7602 supports scalable management options, including standalone and Virtual Controller (where one AP can manage multiple APs), WiNG NOC, Site Controllers, and Cloud Management.

AP-7602 Specifications

Wireless Interface	Dual Radio, 802.11a/b/g/n/AC; 2.4GHz/5GHz
Ethernet Interface	Two 10/100/1000Mb auto-sensing
Power	802.3af PD on GE1; or 12VDC barrel connector
Operating Frequency	2.4GHz band: 2400 – 2483 MHz 5GHz band: 5150 - 5350 MHz and 5470 - 5850 MHz
RF TX Power	1dBm to 19dBm in 1dBm increments Actual power dependent on national standards
Antennas	2 internal dual band antennas supporting 1x1:1 or 2x2:2 2.4GHz: 3.764Bi peak gain 5GHz: 5.95dBi peak gain
Management	Telnet, SSH, HTTP, HTTPS, SNMPv2/v3 Wing Controller, Azara Cloud

Telco Box Mounting the AP-7602 Wireless Wallplate

For telco Box installations, the Wireless Wallplate is installed directly over the standard wall plate supplying Ethernet. All cabled electrical connections are made within a recessed well in the housing of the Access Point. To install the Wireless Wallplate over a telco box:

1 Remove the existing screws and the existing wallplate cover.
2 Gently disengage and remove the RJ-45 outlets from the wallplate cover.
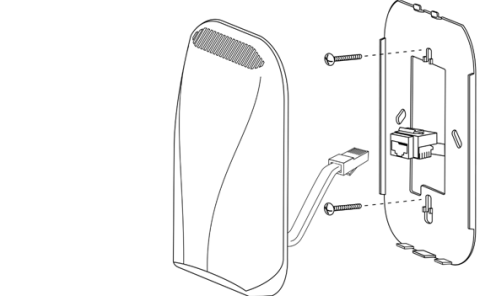
3 Reuse the existing screws to screw the mounting plate to the telco box.
4 Without going over any plastic, connect one end of the 10cm RJ-45 cable into GE1 and route the GE1 cable back through the routing channel on the underside of the Wireless Wallplate. Plug the other end of the 10cm RJ-45 cable into the RJ-45 outlet.
5 Snap the Wireless Wallplate to the mounting plate and verify the unit has power by observing the LEDs.
6 The AP-7602 is ready to configure.

Wall Mounting the AP-7602 Wireless Wallplate

An AP-7602 can be mounted to a flush surface without a telco box.

1 Install the included mounting bracket to the wall using wood screws and wall anchors if appropriate.
2 Connect an Ethernet cable to the GE1 port before connecting the Access Point.
3 Hook the top of the Access Point to the bracket, rotate and snap the bottom of the Access Point.
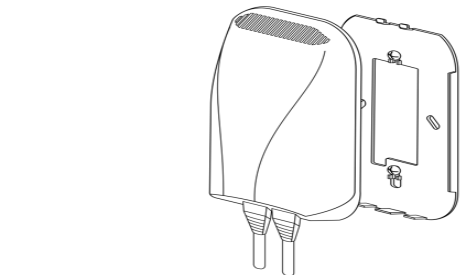
4 Optionally install the included security screw once the installation is verified.
5 The Access Point is ready to configure.

Basic AP-7602 Configuration

Once the Access Point is installed and powered on, complete the following WiNG Assist configuration steps to get up and running with minimal administrative intervention.

Startup Assist updates existing settings. To delete or revise existing settings, either rerun Startup Assist or navigate to where those parameters appear in the user interface and update them accordingly. Refer to the Access Point's

more advanced configuration documentation, available on the support site, for updating the management interface beyond the scope of the WiNG Assist configuration described in this guide. For more information, see: www.extremenetworks.com/support.

To define a basic Startup Assist configuration:

1 Power the Access Point using an appropriate power adapter, PoE injector, or PoE switch.
2 Connect to the Access Point using its default IP address located on the backside of the Access Point.
3 Enter the default username admin in the Username field.
4 Enter the default password admin123 in the Password field.
5 Select the Login button to load the management interface. If logging in using a factory default configuration, Startup Assist automatically displays.
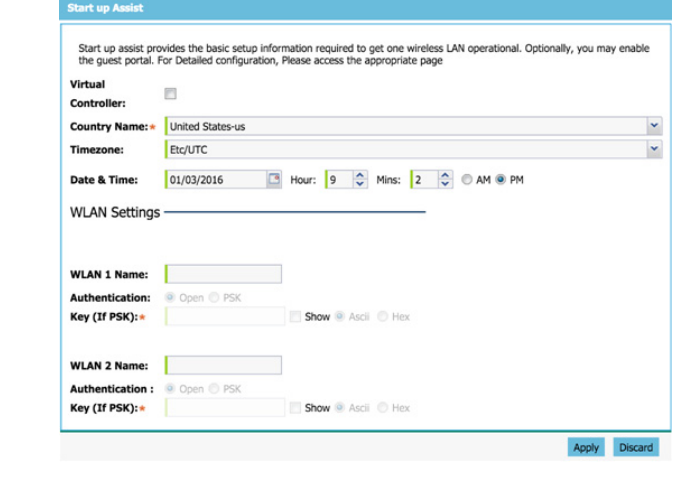
Select the Basic screen, click Startup Assist.
Set the following Startup Assist parameters:
• Virtual Controller - Sets this Access Point as a Virtual Controller capable of managing and provisioning up to 24 other Access Points of the same model. Access Points managed by this Virtual Controller list this Access Point's AP Name as its own. Only one Virtual Controller can be designated.
• Country Name - Set the Access Point's deployment country. Selecting the correct country is central to legal operation. Each country has its own regulatory restrictions concerning electromagnetic emissions and the maximum RF signal strength that can be transmitted.
• Note: Country Name can not be changed when deployed in the United States or Canada.
• Timezone - Specify the geographic timezone where the Access Point is deployed. Different time zones have daylight savings clock adjustments, so specifying the timezone correctly is important to account for geographic time changes.
• Date & Time -Set the date, hour and minute for the current system time in AM or PM format.
• WLAN 1 Name - Provide a unique network identifier name for this WLAN. This is a required setting. The name is used for the SSID.
• Authentication - Select PSK to apply a 64 character maximum passphrase in either ASCII or Hex format.The authenticating device must use the same PSK algorithm during authentication. Selecting Show displays the key in exposed plain text (not recommended).
Selecting Open is not a recommended authentication scheme, as it would provide the Access Point's WLAN no security via credential exchange and would only make sense in a network where no sensitive data is either transmitted or received.
6 Select Apply to save and commit the Startup Assist changes to the Access Point's configuration. Select Discard to revert to the last saved configuration.

Regulatory Information

This guide applies to the following Model Number AP-7602.

Extreme Networks devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Local language translations are available at the following Website: www.extremenetworks.com/support

Any changes or modifications to Extreme Networks equipment, not expressly approved by Extreme Networks could void the user's authority to operate the equipment.

Extreme Networks devices are professionally installed, the Radio Frequency Output Power will not exceed the maximum allowable limit for the country of operation.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.

Bluetooth® Wireless Technology

This is an approved Bluetooth® product. For more information or to view the End Product Listing, please visit https://www.bluetooth.org/tpg/listings.cfm.

Wireless Device Country Approvals

Regulatory markings subject to certification are applied to the device signifying the radio(s) is/are approved for use in the following countries and

continents: United States, Canada, Japan, China, South Korea, Australia, and Europe.

> **Note:** Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom

> **Warning:** Operation of the device without regulatory approval is illegal.

Declaration of Conformity in Languages of the European Community

Hereby, Extreme Networks, Inc. declares that the radio equipment type Wireless LAN Access Point is in compliance with Directive 1999/5/EC. The full text of the EU declaration of conformity is available at the following Internet address: http://www.extremenetworks.com/

Country Selection

Select only the country in which the device will be used. Any other selection will make the operation of this device illegal.

Country Roaming

This device incorporates the International Roaming feature (IEEE802.11d) which will ensure the product operates on the correct channels for the particular country of use.

Ad-Hoc Operation (2.4 GHz band)

Ad-Hoc operation is limited to Channels 1-11 (2412-2462 MHz).

Frequency of Operation – FCC and IC

5 GHz Only

Industry Canada Statement:

Caution: The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-Channel mobile satellite systems. High power radars are allocated as primary users (meaning they have priority) over other frequencies and these could cause interference and/or damage to LE-LAN devices.

Attention: Le dispositif pour la bande 5150-5250 MHz est uniquement destiné à une utilisation en intérieur afin de réduire les Pour les brouillages préjudiciables aux systèmes de satellites mobiles co-canaux. Les radars haute puissance sont Alloués en tant qu'utilisateurs principaux (c'est-à-dire qu'ils ont la priorité) par rapport aux autres fréquences et qui pourraient causer des interférences et / ou endommager les dispositifs LE-LAN.

2.4 GHz Only

Available channels for 802.11bg operation in the US are 1 to 11. The range of channels is limited by firmware.

Health and Safety Recommendations

> Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

• Reduce or eliminate repetitive motion
• Maintain a natural position
• Reduce or eliminate excessive force
• Keep objects that are used frequently within easy reach
• Perform tasks at correct heights
• Reduce or eliminate vibration
• Reduce or eliminate direct pressure
• Provide adjustable workstations
• Provide adequate clearance
• Provide a suitable working environment
• Improve work procedures

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, verify that the adjacent equipment is not adversely affected.

Pacemakers

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with thepacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

Persons with Pacemakers:

• Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
• Should not carry the device in a breast pocket.
• Should use the ear furthest from the pacemaker to minimise the potential for interference.
• If you have any reason to suspect that interference is taking place, turn OFF your device.

Other Medical Devices

Please consult your physician or the manufacturer of the medical device to determine if the operation of your wireless product may interfere with the medical device.

RF Exposure Guidelines

Safety Information
Reducing RF Exposure - Use Properly
Only operate the device in accordance with the instructions supplied.
International
The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices.
Access Points
Access Points must conform to U.S. Federal Communications Commission's (FCC) limitations. FCC has now stipulated a 21dBm EIRP limit for power directed 30 degrees above the horizon.
For supplied antennas, compatible with 5.0 GHz on the access points, refer to the Antenna Guide for "Elevation Gain" information. If using a third-party antenna, it is required that you obtain the antenna-elevation gain information from the antenna manufacturer.
Panel antennas and polarized antennas for point to point only are excluded from this requirement.
The elevation gain must be configured if the access point:
• Is used with dipole antenna. and
• Is transmitting in the 5.15 - 5.25 GHz Unlicensed National Information Infrastructure-1 (UNIII) band
Power Supply
Use ONLY an approved UL LISTED ITE (IEC/EN 60950-1, LPS/SELV) power supply with electrical ratings: Output 12Vdc, min 1A, with a maximum ambient temperature of at least 50 degrees C. Use of alternative power supply will invalidate any approvals given to this unit and may be dangerous.
Alternately this device may be powered from a 802.3af compliant power source which has been certified by the appropriate agencies, or by an approved UL LISTED ITE (IEC/EN 60950-1, LPS/SELV) power supply with electrical ratings: Output 48Vdc, min 0.25A, with a recommended ambient temperature greater than 50 degrees C. Use of alternative power supply will invalidate any approvals given to this unit and may be dangerous.
The product is to be connected to PoE networks without routing to the outside plant.

Radio Frequency Interference Requirements—FCC

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.
Radio Transmitters (Part 15)
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.

The equipment shall be subject to professional engineering personnel to install and configure, it just can be used, and may not be sold directly to the general consumer.

Based on 20cm separation distance to assess the amount of electromagnetic exposure(MPE).

MPE limit 1mW/cm²; Test result is 0.39207 mW/cm²

When using this device, it is recommended to have a separation distance of 20 cm.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Radio Frequency Interference Requirements - Canada
CAN ICES-3 (B)/NMB-3(B)
Radio Transmitters
This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement.

Label Marking: The Term 'IC:' before the radio certification only signifies that Industry Canada technical specifications were met.

Etiquette de marquage: Le terme "IC" avant la certification radio signifie que le produit est compatible avec le spécification Industrie Canada

The equipment shall be subject to professional engineering personnel to install and configure, it just can be used, and may not be sold directly to the general consumer.

Based on 20cm separation distance to assess the amount of electromagnetic exposure

2.4GHz Band: MPE limit 5.4039 W/m²; Test result is 1.5215 W/m²
5GHz Band: MPE limit 9.7564 W/m²; Test result is 2.2977 W/m²

When using this device, it is recommended to have a separation distance of 20 cm.

L'équipement doit être assujetti au personnel d'ingénierie. Configurer, il peut seulement être utilisé, et ne peut être vendu directement au consommateur général.

Basé sur une distance de séparation de 20 cm pour évaluer la quantité d'exposition électromagnétique (MPE).

2.4GHz Band: MPE limite 5.4039 W / m²; Le résultat du test est de 1.5215 W / m²
5GHz Band: MPE limite 9.7564 W / m²; Le résultat du test est de 2.2977 W / m²

Lors de l'utilisation de cet appareil, il est recommandé d'avoir une distance de séparation de 20 cm.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec une autre antenne ou émetteur.

CE Marking and European Economic Area (EEA)

The use of 2.4GHz RLAN's, for use through the EEA, have the following restrictions:

Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz.

Bluetooth® Wireless Technology for use throughout the EEA has the following restrictions:

• Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 - 2.4835 GHz.

Statement of Compliance

Extreme Networks hereby declares that this radio equipment is in compliance with Directive 2011/65/EU and 1999/5/EC or 2014/53/EU (2014/53/EU supersedes 1999/5/EC from 13th June 2017).

Japan (VCCI) - Voluntary Control Council for Interference Class B ITE

この装置は、クラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをしてください。
VCCI-B

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the manual.

Korea Warning Statement for Class B ITE

기종별	사용자 안내문
B 급 기기 (가정용 방송통신기자재)	이 기기는 가정용 (B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며 , 모든 지역에서 사용할 수 있습니다 .
Class	User's Guide
Class B (Broadcasting Communication Device for Home Use)	This device obtained EMC registration mainly for home use (Class B) and may be used in all areas.

Other Countries

All 2.4GHz and 5GHz Wireless Devices:

Australia

Use of 5GHz RLAN's in Australia is restricted in the following band 5.50 – 5.65GHz.

Brazil

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em Sistemas devidamente autorizados.

Chile

Este equipo cumple con la Resolución No 403 de 2008, de la Subsecretaria de telecomunicaciones, relativa a radiaciones electromagnéticas.

This device complies with the Resolution Not 403 of 2008, of the Undersecretary of telecommunications, relating to electromagnetic radiation.

Chile: (Devices with a WLAN Radio)

The device will comply with Chile's Resolution 755, part j.1) which states that the device is set to operate in the following bands for indoor use only with maximum radiated power not greater than 150mW:

• 2.400 hasta 2.483,5 MHz
• 5.150 hasta 5.250MHz

• 5.250 hasta 5.350MHz
• 5.725 hasta 5.850MHz

as well as that band 5150-5250MHz will be restricted to the indoor use and the maximum radiated power density does not exceed 7.5MW / MHz in any 1 MHz band and 0.1875mW /25kHz in any 25kHz band.

Conforme a Resolución 755 parte j.1), se ajustará el dispositivo a operar en interiores en las siguientes bandas con una potencia máxima radiada no superior a 150mW:

• 2.400 hasta 2.483,5 MHz
• 5.150 hasta 5.250MHz
• 5.250 hasta 5.350MHz
• 5.725 hasta 5.850MHz

Además, de acuerdo con Resolución 755, para la banda 5150-5250MHz la operación del equipo estará restringida al interior de inmuebles y la densidad de potencia radiada máxima no supera 7,5mW/MHz en cualquier banda de 1MHz y 0.1875mW/25kHz en cualquier banda de 25kHz.

China

通过访问以下网址可下载当地语言支持的产品说明书
www.extremenetworks.com/support.

合格证

Eurasian Customs Union

Евразийский Таможенный Союз

Данный продукт соответствует требованиям знака ЕАС.

EAC

Hong Kong

In accordance with HKTA1039, the band 5.15GHz - 5.35GHz is for indoor operation only.

Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

South Korea

For a radio equipment using 2400-2483.5MHz or 5725-5825MHz, the following two expressions should be displayed:

무선 설비는 운용 중 전파혼신 가능성이 있음
당해 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

Turkey

For terminals that support Turkish characters in SMS Release 8 services, the following

statement should be printed on the packages and manual of the device:

Bu cihaz Türkçe karakterlerin tamam?n? ihtiva eden ETSI TS 123.038 V8.0.0 (veya sonraki sürümün kodu) ve ETSI TS 123.040 V8.1.0 (veya sonraki sürümün kodu) teknik özelliklerine uygundur.

This device conforms to technical specification in ETSI TS 123.038 V8.0.0 (or the code of any subsequent release) and ETSI TS 123.040 V8.1.0 (or the code of any subsequent release) which contain all Turkish characters.

Thailand

เครื่ องโทรคมนาคมและอุ ปกรณ์ นี้ มี ความสอดคล้ องตามข้ อกำหนดของ กทช .

Taiwan

台灣
低功率電波輻射性電機管理辦法
第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及乾擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信規定作業之無線電通信。
低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
使用此產品時應避免影響附近雷達系統之操作。
無線基地台（專業安裝）
• " 本公司於說明書中提供所有必要資訊以指導使用者 / 安裝者正確的安裝及操作 " 警語。並於該中文使用說明書及器材上標示。
•"本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者"警語。
電磁波曝露量MPE標準值 1mW/cm²；送測產品實測值為：0.39207 mW/cm²
本產品使用時建議應距離人體 20cm

European Waste Electrical and Electronic Equipment (WEEE) Notice

In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

1 The symbol above indicates that separate collection of electrical and electronic equipment is required.
2 When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
3 It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
4 It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.
For information about the available collection system, please contact Extreme Customer Support at +353 61 705500 (Ireland).

Turkish WEEE Statement of Compliance
EEE Yönetmeliğine Uygundur

AP-7602 RoHS Compliance

單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr⁶)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
電路板 PCBA	−	○	○	○	○	○
外殼及配件 Cover & Accessory	○	○	○	○	○	○
連接線 Cable	○	○	○	○		○
包裝材料 Packing Material	○	○	○	○	○	○

備考1.〝超出0.1 wt％〞及〝超出0.01 wt％〞係指限用物質之百分比含量超出百分比含量基準值。
Note 1 : "Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2.〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。
Note 2 : "○" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3.〝−〞係指該項限用物質為排除項目。
Note 3 : The "−" indicates that the restricted substance corresponds to the exemption.

警告使用者：
此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

Documentation & Support
For product support, including documentation, visit:
www.extremenetworks.com/support/

Extreme
Connect Beyond the Network