icXchange™ Unified Access Device

icXchange™ ICX10UAD/ICX20UAD Quick Install Guide

Intended audience

This guide is designed to be used by network managers, administrators, and technicians who are responsible for installing, networking equipment in enterprise and service provider environments. Knowledge of telecommunication and internet protocol (IP) technologies is assumed.

Documentation

The ICC icXchange™ product and support documentation consists of a variety of manuals, installation guides, videos, knowledge articles, sample designs, troubleshooting, and FAQ guides to assist you with the deployment of your new and innovative solution.

These and other documents are available for download at http://intcomcorp.com/client-support.html

White Glove Service Member portal at: http://intcomcorp.com/AlliancePartners.html

To view PDF files, use Adobe Acrobat Reader® 5.0 or newer. Download Acrobat Reader for free from the Adobe website: http://www.adobe.com/products.

Find additional documentation at: http://www.intcomcorp.com.

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Chapter1: Overview

About ICC Unified Access Device solution

The Unified Access Device (UAD) series of mobility products are designed for advanced wireless environments that connect to broadband networks using its routing protocols while enhancing the user experience with advanced content control capabilities via 802.11ac gigabit speeds.

ICC's UAD wireless access points are wireless to wired connection points between the mobile user and the network. Designed for small, medium, and large deployments, the UADs serve as a high performance hub station controlling IP traffic, ensuring content passes through seamlessly on their way to a destination, and keeping the whole system balanced and efficient. To accomplish this task UADs are embedded with numerous advanced features as well as with ICC's icXengine, a patented efficiency engine that helps control IP data traffic.

Special User

Special Device

IP Traffic

Available Access

Data

Voice

More Data

Less Dropped

Packets

More users

More devices

Video

icXengine – Packet decision, update, and

Special Device

Video

Voice

Data

Special User
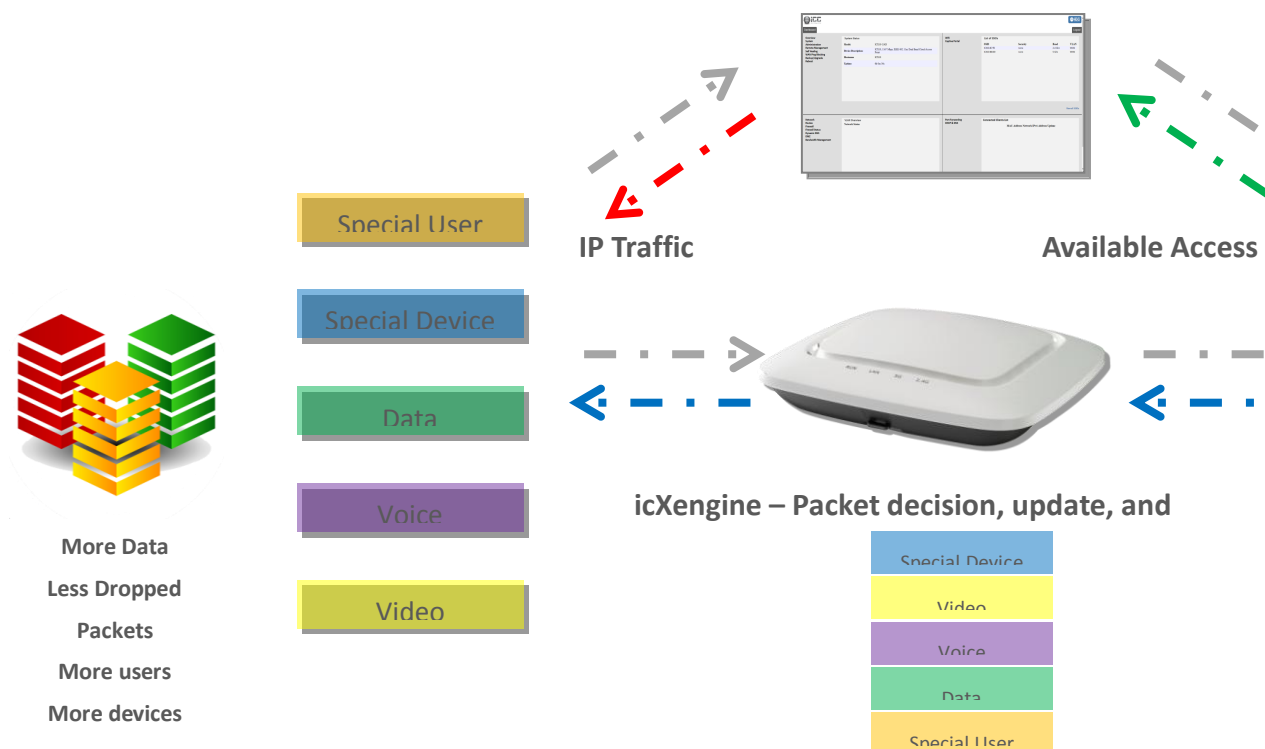
ICX10UAD features ICC's Intelligent Content and Management Matrix (icXengine) that allows:

- Performance connectivity, identification and content control that ensure delivery
- Control mechanisms for an enhanced user experience even while the network becomes more saturated

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- Policy-based and software-driven features allow for specific Quality-of-Service streams
- Combined with basic Firewall settings, users can deploy all-wireless networks

Equipment Introduction

The ICX10UAD is a dual band 2x2 MIMO wireless access point that complies with 802.11n/ac and designed for high density deployments in small enterprises, hospitality, education, public access, and many other markets.

Featuring Multiple-in & Multiple-out (MIMO) technology, the ICX10UAD excels at high throughput techniques especially when paired with ICC's UAD Software OS.

Packing List

1 x ICX10UAD Access Point

1 x Wall bracket

1 x Ceiling bracket

1 x Screw

1 x Cable tie

Product Specification

Physical specification

Dimensions	6.2 x 6.2 x 1.6 in(Width x Length x Height)
Weight	Less than 1kg
LEDs	RUN,LAN,5GHz,2.4GHz
Ethernet interface	RJ-45 connector

Electrical specification

Power input	+12V/1.5A
Power consumption	≤12W

Environmental specification

Working temperature	0℃ ~ 45℃

Working humidity	5% ~ 95% non-condensing
Elevations	86kPa～106kPa
Dustproof and waterproof	IP30
Lightning protection	4KV common mode surge

Product Hardware Overview

Front   Rear
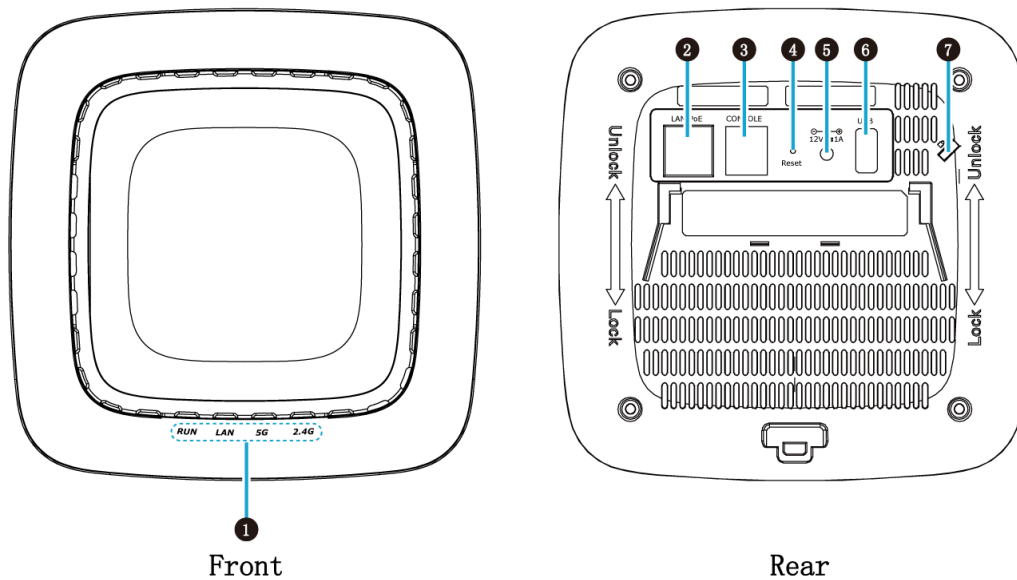
No.	Name	Function
1	LEDs	See LED Definition
2	LAN Port	WAN/LAN Multifunction 10/100/1000MBase-T RJ-45 Ethernet port, supporting 802.3af PoE function
3	Console port	An RJ-11 port, used to access the CLI
4	Reset button	Pressing the button longer than 5 seconds will restore the device to factory defaults and reset the device.
5	DC power connector	Used for connecting the power adapter (not included)
6	USB port	Supports a USB2.0 device(Up to 0.5A)
7	Kensington Lock Slot	For additional security

LED Definitions

LED	Function	State-Color	Indication
RUN	AP power / ready status	Steady - Green	APis ready
		Flashing - Green	AP is managed by controller
		Red	AP hardware failure
		Off	No power to AP
LAN	Network Link Status	Steady - Green	1000Mbps Ethernet link with Auto negotiation

		Steady- Yellow	10/100Mbps Ethernet link link with Auto negotiation
		Flashing	Ethernet link activity
		Off	Ethernet link unavailable
5G	5G Hz Radio Status	Steady– Green	5GHz radio is enabled
		Off	5GHz radio is disabled
2.4G	2.4G Hz Radio Status	Steady – Green	2.4GHz radio is enabled
		Off	2.4GHz radio is disabled

Product Software Overview

The ICC UAD Software OS is designed to enable an all wireless IP data infrastructure. Featuring two primary modes, Advanced AP and Routing, the UAD software platform allows users to attach to networks as an enterprise access point or as a routing standalone firewall device. When combined with the advanced dual band 802.11ac, the UAD Software OS enables all-wireless networking for the most demanding mobility ecosystem.

The UAD Software OS has four sections that allow for complete IP data control and management. As seen below, these sections provide a variety of details, features, and flexibility that allow users complete visibility

ICC UAD Software OS hierarchy
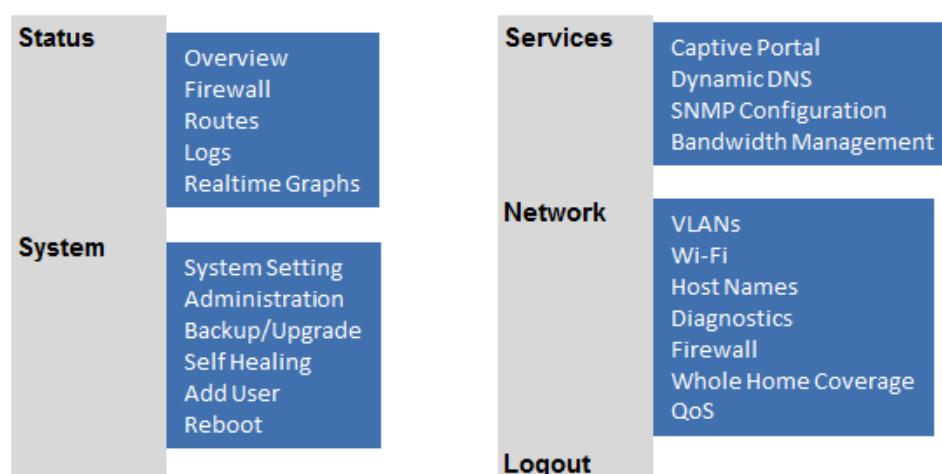
The complete hierarchy can be viewed after the user has passed the initial Dashboard shown after the login process.

Chapter 2: Installation

To reduce the risk of bodily injury, electrical shock, fire, and equipment damage, read all warnings and precautions in this guide before installing or maintaining product.

NOTE: To avoid risk of injury from electrical shock or energy hazard, installation and service of this product must be performed by qualified service personnel.

NOTE: Make sure the AP fits securely on the ceiling rail when hanging the device in the ceiling. Poor installation can cause the AP to fall andcause injury and equipment damage.

Safety Statement

- To ensure optimal performance, do not install the device near the power lines, electric lamps, power grid, or in any forceful power grid location.

- Ensure the power adapter you use is well grounded if used with this device.

- Install other lightning protection equipment near the device if necessary.

- Use a less than 50m network cable to connect to the PoE port to ensure steady power transmission. The network cable complies with the DC resistance definition in the YD/926.2 protocol.

Installation Environment

- Operating ambient temperature: 0℃ ~ 45℃

- Operating ambient humidity: 5% ~ 95% non-condensing

Installation mode:

- Wall mounting and Ceilingmounting.
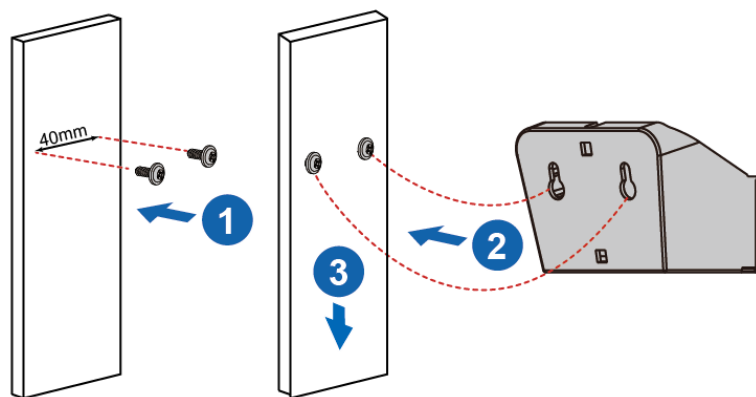
Installation tool:

- Screws and screw-driver

Installation site:

- Please ensure the visibility ofproduct and no tall buildings and woods block between them.

Installation procedure for wall mounting the unit

Wall mounting

1. Match up two screws with the wall mount receptacles and then proceed to screw the screws into the wall first. The distant between two screws mounted on the wall is 40mm.

2. Alignthe bracket with the screws, and then pull down on the bracket so the wall mount receptacle has been fixed tightly.
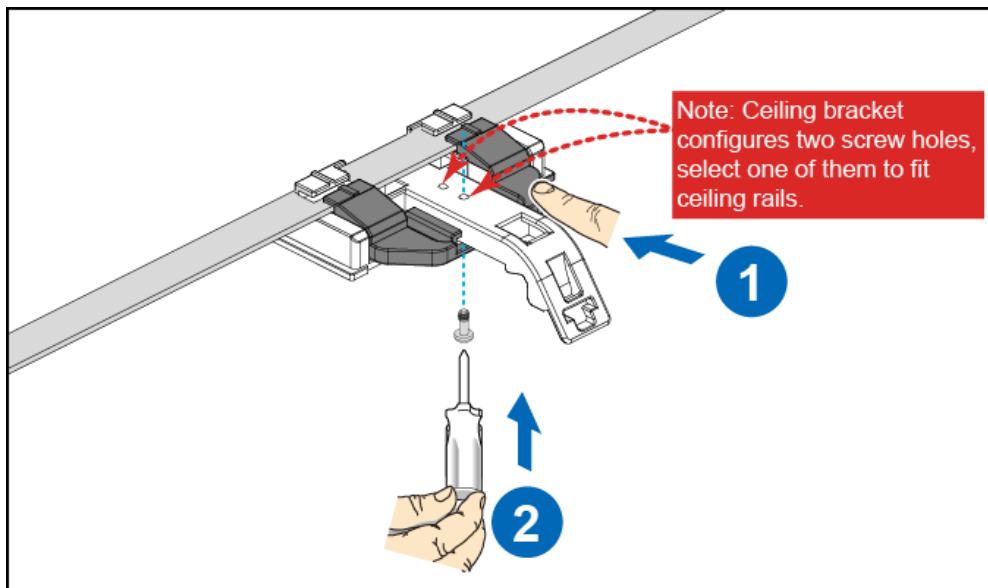

3. Align the securing hook of AP with bracket, and push AP from up to down until it has been locked fully.
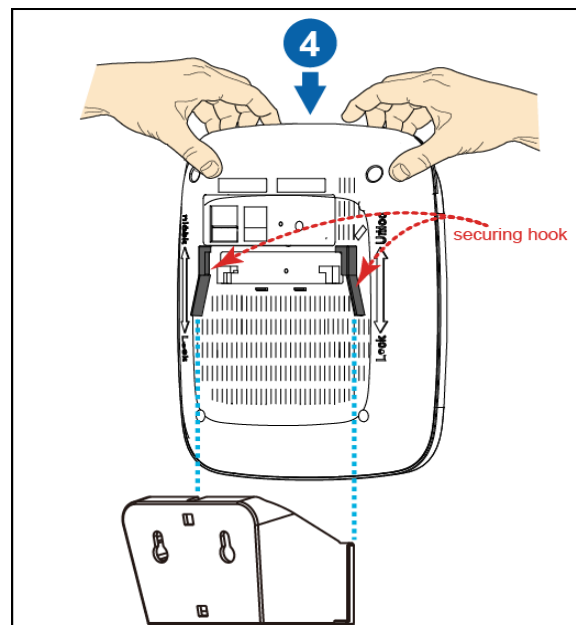
## Installation procedure for mounting the unit on the ceiling

1. Fasten the ceiling rail by pushing the bracket in as the indicated direction
2. Secure the screw to fasten bracket assembly.

Note: Ceiling bracket configures two screw holes, select one of them to fit ceiling rails.

3. Align securing hook of AP with bracket (see dotted line), and then push AP close to bracket until AP has been fully locked.

securing hook

locking hole
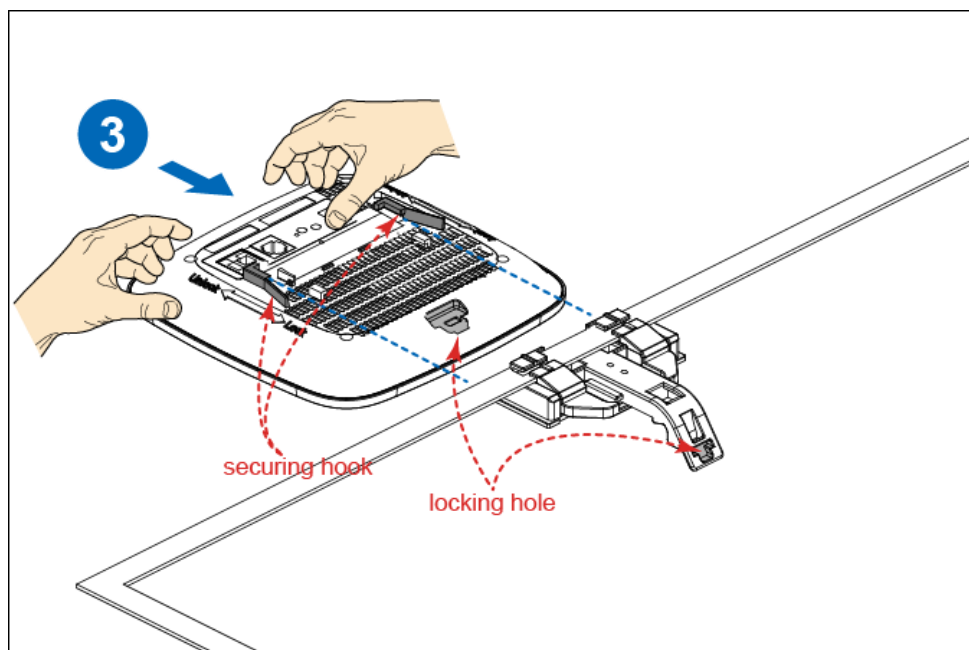
4. The device can be kept secure by passing a cable-tie through the safely lock thereby tying the AP and bracket together. This is an additional safety measure because the Kensington Lock is another option.
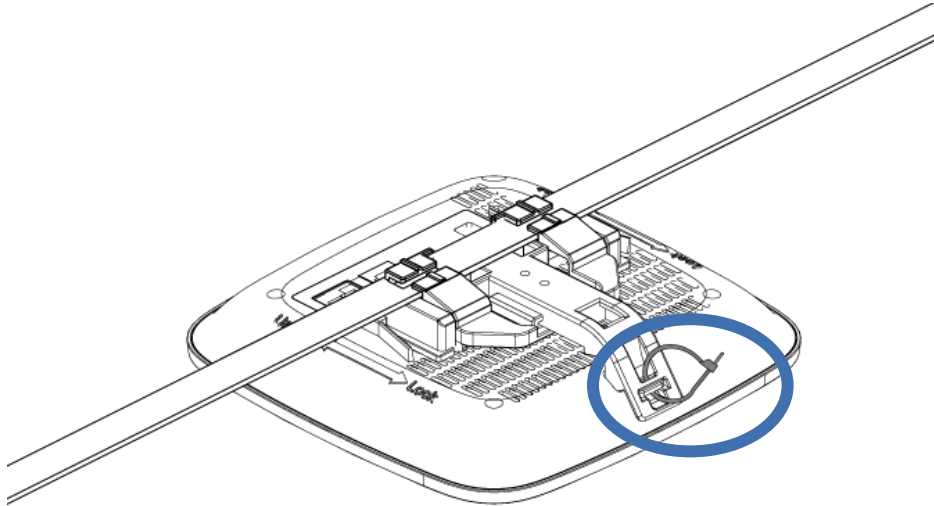
Powering up the unit

The ICX10UAD can be powered by a power injector, power supply, or a power-over-ethernet (PoE) switch. These devices must support at least IEEE802.3af.

Power Supply   Power Injector   Power-over-Ethernet Switch


(not included)

Rear of the device

Chapter 3: Web UserManagement

While the login steps are simple, a user must understand how computer data networks operate, how to use IP addresses, and general networking theory to ensure a quick and efficient setup process.

Logging in to the Web Page

1. To configure PC IP address, fill 192.168.0.x (where 'x' is a numeric value) in "IP address" and 255.255.255.0 in "Subnet mask"(set Window7 as an example to show the properties)
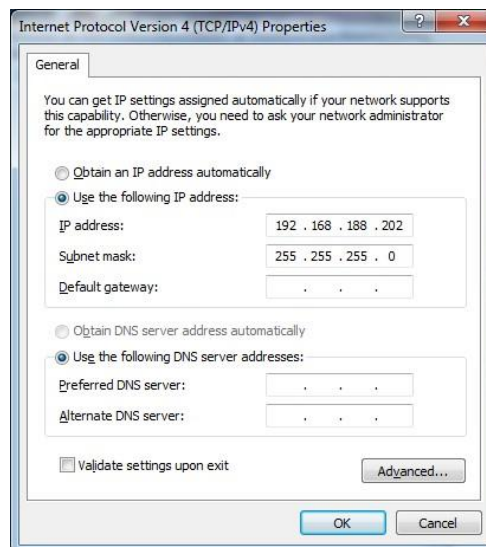
2. Input the default IP address **192.168.0.1** in the address bar of the web browser and press Enter.

3. Enter username and password (**username: admin, password: password**), after password authentication is successful, the web page is displayed.

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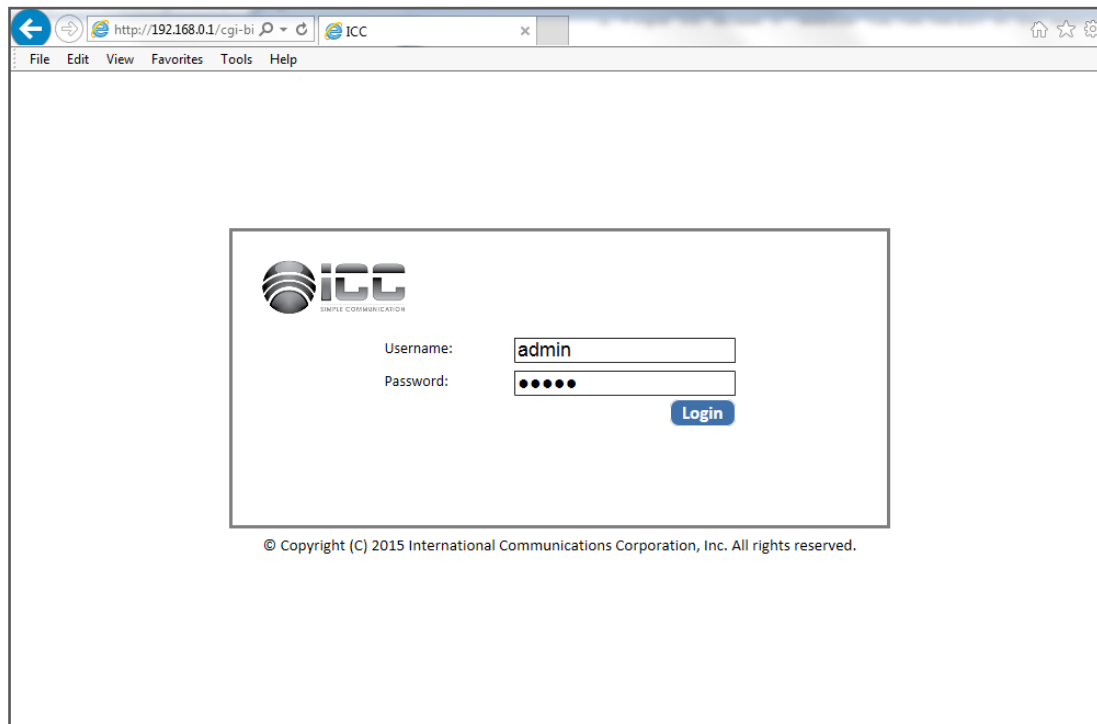
Login Web Network Management

The default Web login process and details are identified below.

Default Web login information:

User name: **admin**

Password: **admin**

IP address of the device: **192.168.0.1**

NOTE: Make sure the UAD is in AP mode when using IP address 192.168.0.1.

Web login steps:

(1) Connect the device to a PC using a PoE device.

(2) Configure the IP address for the PC and ensure that the PC can communicate with the UAD.

(3) Launch the browser and input the login information

Launch the browser on the PC, and input **http://192.168.0.1** in the address bar and press **Enter**. Login to the UAD as shown in fig 1-1. Input the user name of **admin** and password of **admin**, click **Login**.
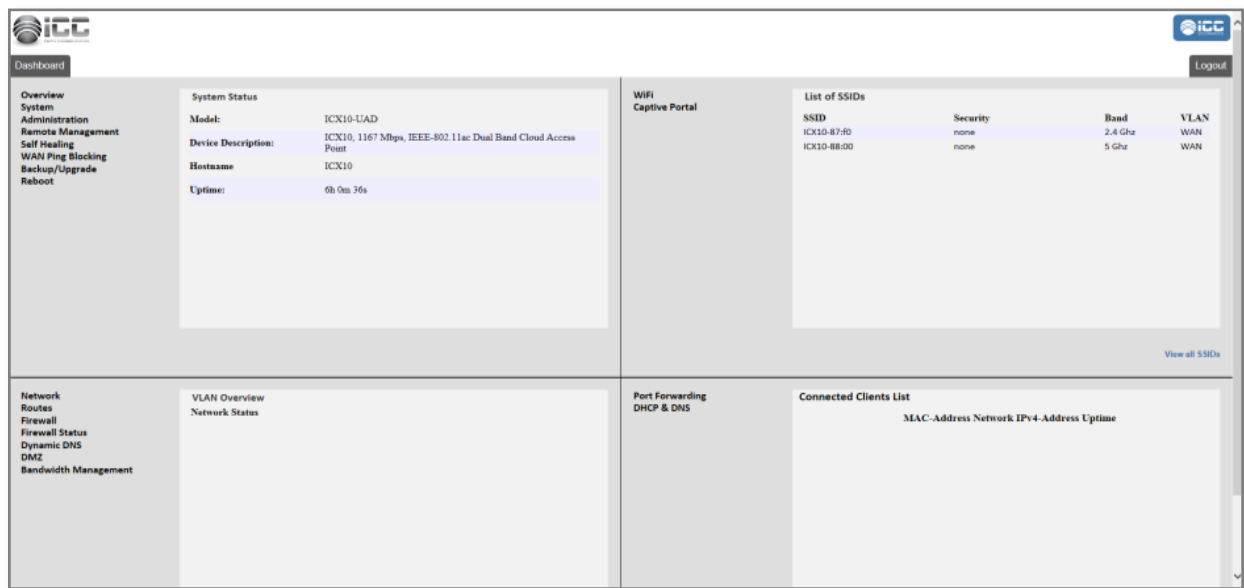
Quit Web Network Management

Click the **Log off** on the upper right corner on the Web network management page to quit the application.

Congratulations! You now have access to your new Unified Access Device and can start leveraging mobility and wireless capabilities.

For more details on software configurations, please use the UAD Software OS Manual. The UAD Software OS manual outlines each feature in detail, how to use them, and now hot maximize your new high performance unified ecosystem.

Regulatory and compliance

The ICC icXchange™ access points must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This product contains encryption. It is unlawful to export out of the United States without obtaining a U.S. Export License.

This product does not contain any user serviceable components. Any unauthorized product changes or modifications will invalidate ICC's warranty and all applicable regulatory certifications and approvals.

Only antennas specified for your region by ICC can be used with this product. The use of external amplifiers or non-ICC antennas may invalidate regulatory certifications and approvals.

Declaration of ROHS compliance

International Communications Corporation hereby declares that the product ICC icXchange™ access point has been designed and manufactured in accordance with Directive 2002/95/EC of the European Commission on the restriction of certain hazardous substances in electrical and electronic equipment. (ROHS)

⚠ CAUTION: Exposure to radio frequency radiation

FCC warning

This device generates and radiates radio-frequency energy. In order to comply with FCC radio-frequency exposure guidelines for an uncontrolled environment, this equipment must be installed and operated while maintaining a minimum body-to-antenna distance of 20 cm (approximately 8 in).

Canada warning

The radio equipment installer must ensure that the antenna is located or pointed so that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website: www.hc-sc.gc.ca/rpb.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

USA — Radio frequency requirements

This device must not be co-located or operated in conjunction with any other antenna or transmitter. This device is for indoor use only when using channels 36, 40, 44 or 48 in the 5.15 to 5.25 GHz, 5.745 to 5.85 GHz frequency range.

Industry Canada — Radio frequency compliance

This device complies with RSS 210 of Industry Canada. 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 this device. L'utilisation de cedispositifestautoriséeseulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositifdoitétre prêt à accepter tout brouillageradioélectriquereçu, mêmesicebrouillageest susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power (EIRP) is not more than the amount required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cetappareil cause du brouillage au service faisantl'objetd'unelicence, ildoitetre utilize a l'interieur et devraitetre place loin des fenetresafin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenned'emission) estinstalle a l'exterieur, ildoit faire l'objetd'unelicence.

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

USA – Federal Communications Commission (FCC) EMC compliance

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.

The user may find the following booklet prepared by the Federal Communications Commission helpful: The Interference Handbook. This booklet is available from the US Government Printing Office, Washington, DC 20402. Stock No. 004-000-0034504.

ICC is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this ICC Wireless 11b/g PoE Access Point, Model icXchange™ ICX200WAP, or the substitution or attachment of connecting cables and equipment other than specified by ICC.

The correction of interference caused by such unauthorized modification, substitution, or attachment will be the responsibility of the user.

Changes or modifications not expressly approved by ICC could void the user's authority to operate this equipment.

Manufacturer's FCC declaration of conformity

Model Number: ICX200WAP International Communications Corporation
Equipment Type: WLAN Access Point
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.

Safety compliance notice

This device has been tested and certified according to the following safety standards and is intended for use only in information technology equipment, which has been tested to these or other equivalent standards:

- EN60950-1
- IEC 60950-1
- UL 60950-1

Industry Canada – RF compliance

This device complies with RSS 210 of Industry Canada.

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 this device.

L'utilisation de cedispositifestautoriséeseulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositifdoitétre prêt à accepter tout brouillageradioélectriquereçu, mêmesicebrouillageest susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power (EIRP) is not more than the amount required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cetappareil cause du brouillage au service faisantl'objetd'unelicence, ildoitetre utilize a l'interieur et devraitetre place loin des fenetresafin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenned'emission) estinstalle a l'exterieur, ildoit faire l'objetd'unelicence.

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

Industry Canada – Emissions compliance statement

This Class B digital apparatus complies with Canadian ICES-003. Avis de Conformité à la Réglementationd'Industrie Canada.Cetappareilnumérique de la classe B est conform à la norme NMB-003 du Canada.

Warranty

All IcXchange™hardware, excluding fans and internal power supplies, is under warranty for the life of the product and 2 years after the product is End-of-Life. Fans and internal power supplies are not included in the lifetime warranty and are covered by a warranty period of five (5) years. Should any IcXchange™ product fail to function as warranted, ICC may, at its own discretion, either repair or replace the defective product with a similar or functionally equivalent product, during the applicable warranty period. ICC will endeavor to repair or replace any product returned under warranty within thirt30) days of its receipt of the returned product. End-of-Life of a product is defined as the date that ICC no longer makes the product readily available for sale in its authorized channels. Support for IcXchange™ hardware can be extended via an IcXchange™ Service Contract.

ICC warrants that for a period of two (2) years from the invoice date on the authorized ICC distributor's invoice that the Software supplied by ICC will perform substantially in accordance with the specifications set forth in the IcXchange™ user guide accompanying the Product. In the case of a defect, which is reproducible by ICC, the Software will be either repaired or replaced, at ICC's option.

All products that are returned to ICC become the property of ICC. Repaired or replacement products may be refurbished or contain refurbished materials. Any replaced or repaired product carries the remainder of the initial warranty. ICC is not responsible for any Customer or custom software or firmware, configuration information or Customer memory data contained in, stored on, or integrated with any products returned to ICC pursuant to any warranty. Customer must back up or otherwise retain any such information or data prior to shipping product to ICC. Products returned to ICC should have any customer-installed accessory or add-on components, such as expansion modules, removed prior to returning the product for replacement. ICC is not responsible for these items if they are returned to ICC with the product.

Prior to returning any defective product, Customers must contact ICC for a Return Material Authorization number ("RMA"). Proof of the original purchase may be required. Any product returned to ICC without a valid RMA number clearly marked on the outside of the package will be returned to the customer at customer's expense. For warranty claims within the US and Canada, please call our toll-free customer support number at 1-844-242-9246. Customers are responsible for all shipping charges and risk of loss from their location to ICC. ICC is responsible for return shipping charges and risk of loss from ICC to customer's location.

WARRANTIES EXCLUSIVE: IF AN ICC PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY SHALL BE REPAIR OR

REPLACEMENT OF THE PRODUCT IN QUESTION, AT ICC'S OPTION. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. PRODUCTS ARE NOT WARRANTED TO OPERATE UNINTERRUPTED OR ERROR FREE. ICC NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS. ICC SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR IF IN ITS SOLE JUDGMENT THE ALLEGED DEFECT WAS CAUSED BY CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING OR OTHER HAZARD.

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