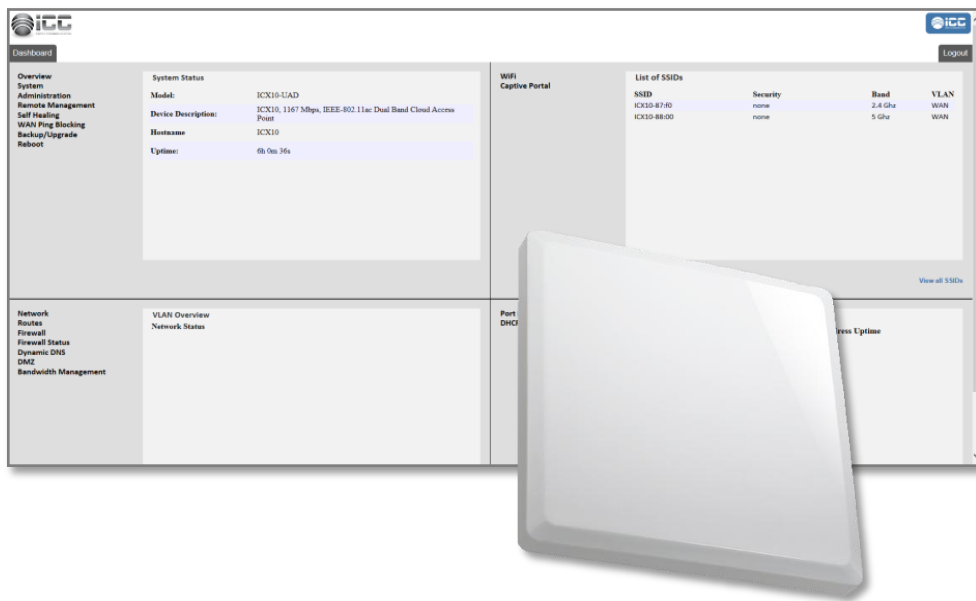




icXchange™ Unified Access Device



icXchange® 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>.

Contact information

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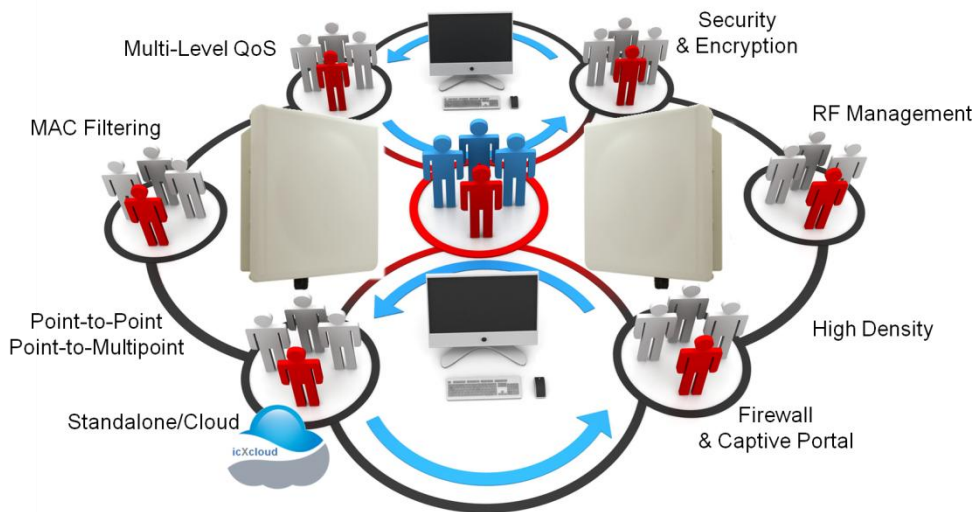
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Chapter1: Overview

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.



ICX20UAD 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
- 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 ICX20UAD is a concurrent dual-band 2x2 outdoor Bridge and Routing Access Device featuring IEEE802.11n/11ac and designed for high-density deployments.

Packing List

- AP x1
- L shaped clamp x 1
- Waterproof cover x 1
- Installation package x 1

Product Specification

Physical specification

Dimensions	8.5in x 8.5 in x 2.7in(L x W x H)
Weight	6.6 lbs
LED	RUN/ LAN/ RADIO 0/ RADIO 1
Ethernet interface	RJ-45 connector

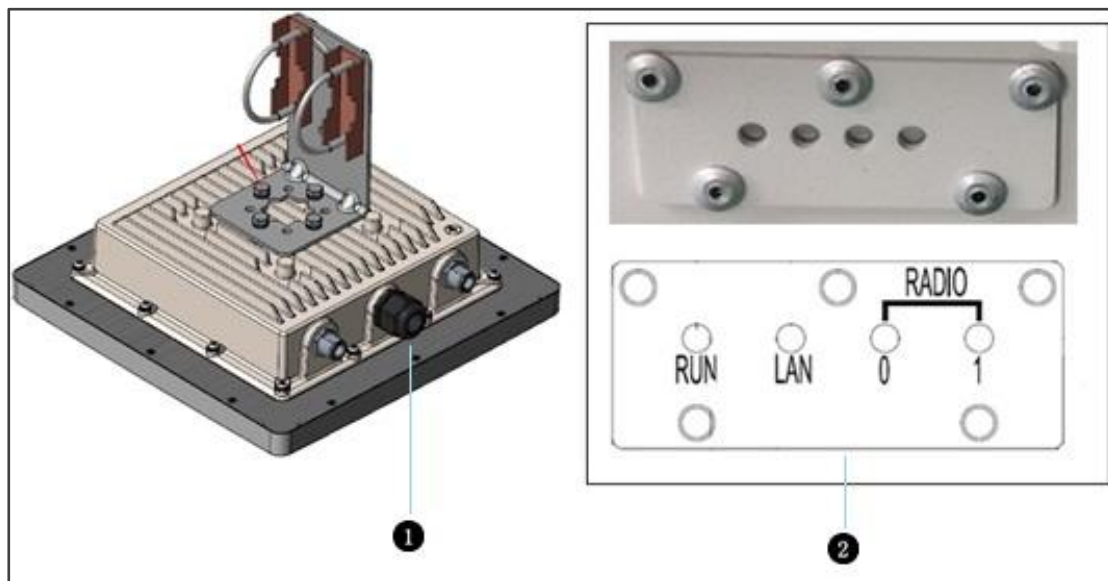
Electrical specification

Power input	Standard 802.3atPoE
Power consumption	≤12.33W

Environmental specification

Working temperature	-40°C ~ +65°C
Working humidity	5% ~ 95% non-condensing
Elevations	86kPa~106kP0061
Dustproof and waterproof	IP67
Lightning protection	6KV common mode surge

Product Hardware Overview



No.	Name	Function
1	LAN Port	10/100/1000M Base-T Ethernet port (RJ-45), used as a WAN or LAN port as well as for 802.3at PoE support
2	LEDs	See LED Definition

LED Definitions

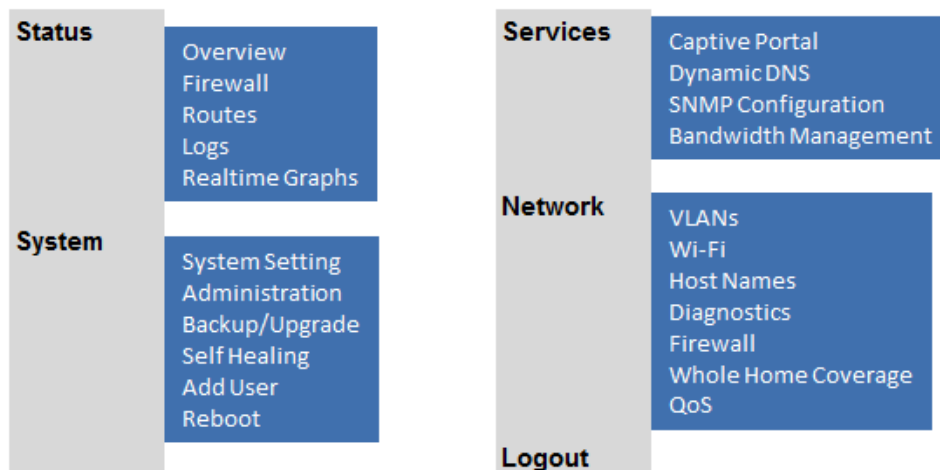
LED	Function	State-Color	Indication
RUN	AP power / ready status	Steady - Green	AP is ready
		Red	AP hardware failure
		Off	No power to AP
LAN	Network Link Status	Steady - Green	1000Mbps Ethernet link negotiated
		Steady- Yellow	10/100Mbps Ethernet link negotiated
		Flashing	Ethernet link activity
		Off	Ethernet link unavailable
0	5G Hz Radio Status	Steady- Green	5GHz radio is enabled
		Off	5GHz radio is disabled
1	2.4GHz 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 and cause 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: -40°C ~ +65°C
- Operating ambient humidity: 5% ~ 95% non-condensing

Installation mode:

- Pole mounting.

Installation tool:

- Screws, screw-driver, and wrench

Installation site:

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

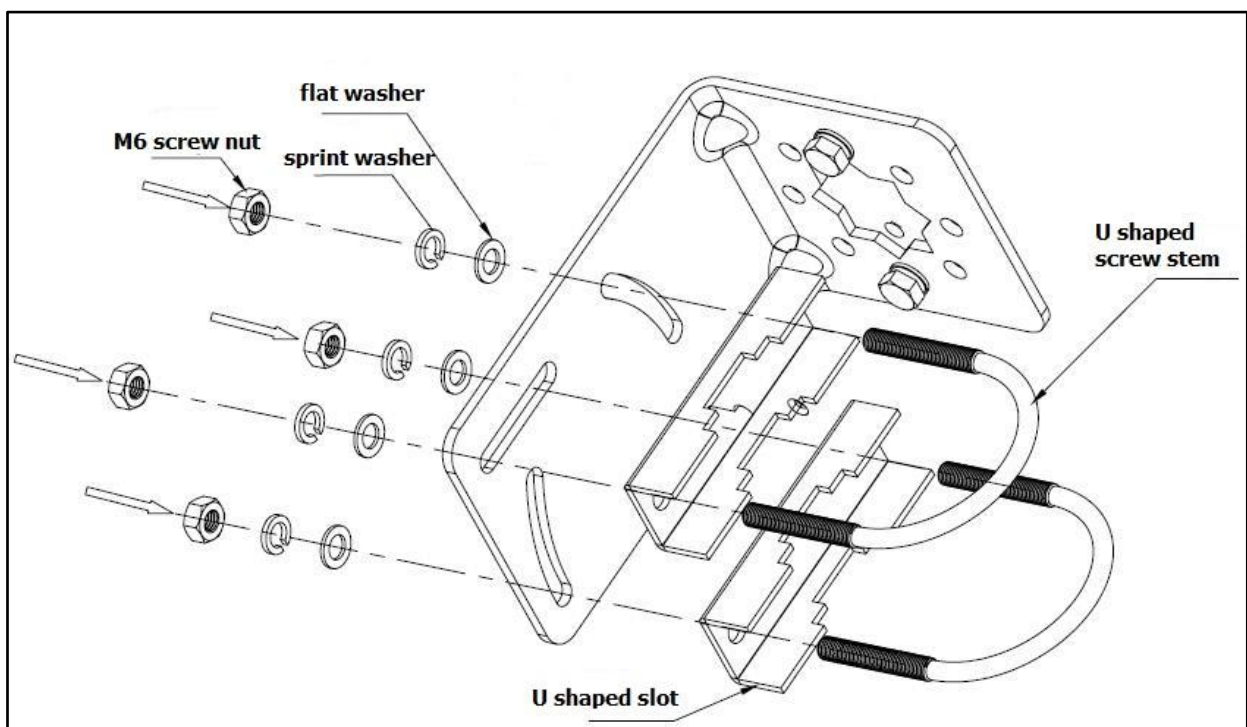
Installation procedure for wall mounting the unit

ICC's Intelligent Content Control for high density, outdoor, and last mile networks ensure simple connectivity, identification of content, data control to ensure delivery for an enhanced user experience even while the network becomes more saturated.

The ICX20UAD is also simple to install, configure, and quickly put into service. Designed with a simple pole mounting system, integrated antennas, and industrial grade NEMA enclosure, the ICX20UAD can be installed in any environment.

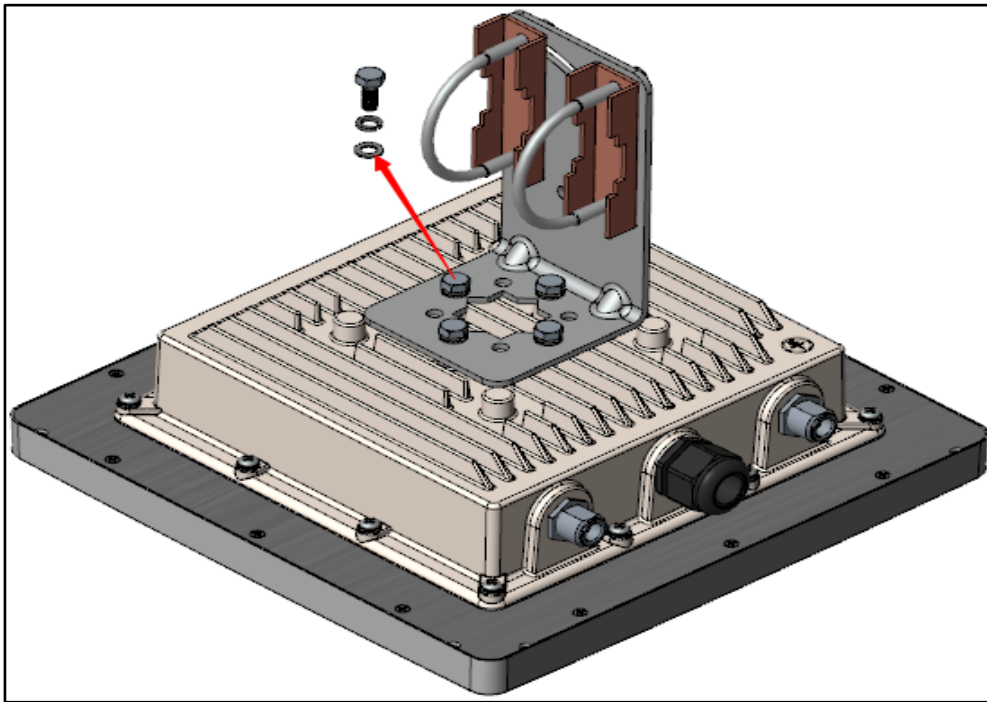
Pole mounting

1. First install the L shaped clamp, with the M6 screw nut, spring washer and flat washer. All Four screws will need to be installed to keep the unit secure.
2. Put the U shaped screw stem and U shaped slot through the guided holes. Once in place, secure M6 crew nut and M6 washer.

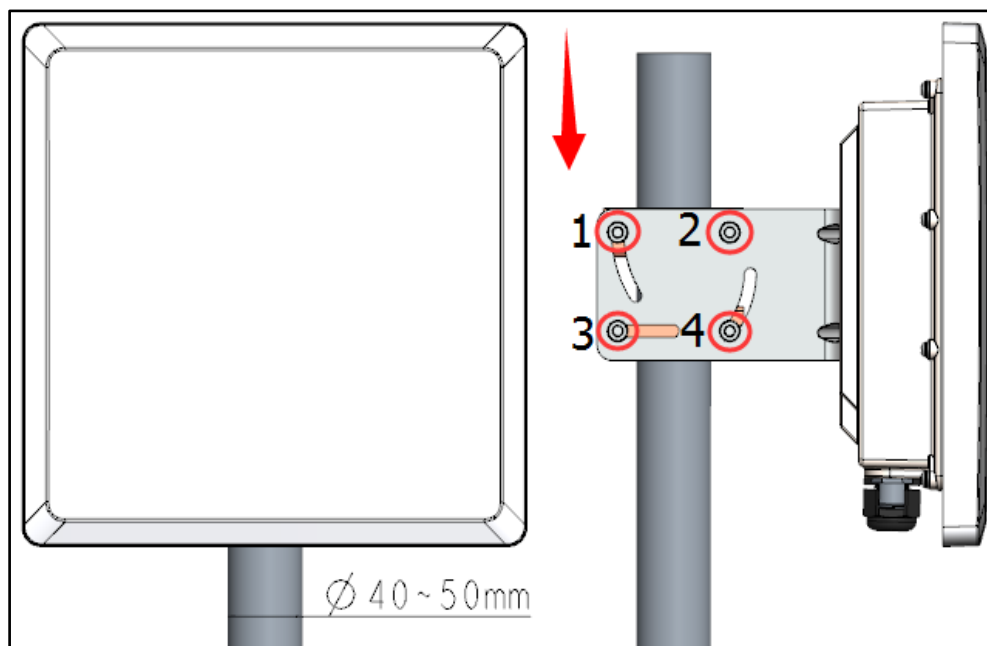


3. Install the clamp on the rear of ICX20UAD, with M6*12 screw bolt, M6 spring washer and M6 flat washer. Four screw bolts will be needed to ensure a secure installation.

4. Line up the mounting bracket with the rear of the UAD unit. Slide the M6*12 screw bolt and M6 washer into the hole on the back of the unit and secure them in place.



5. Finally mount ICX20UAD on the pole as shown in the picture. And tighten the screw nut tight with wrench.

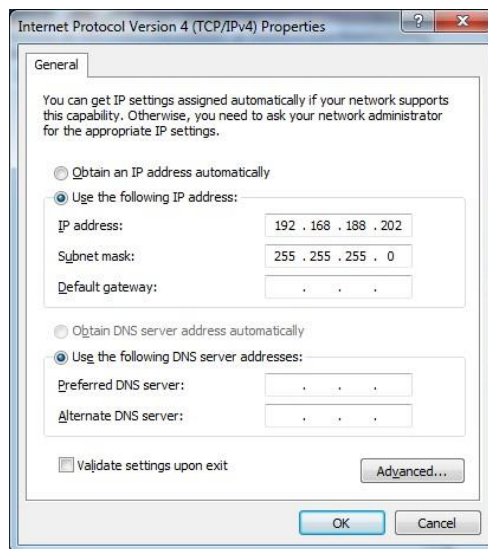


Chapter 3: Web User Management

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

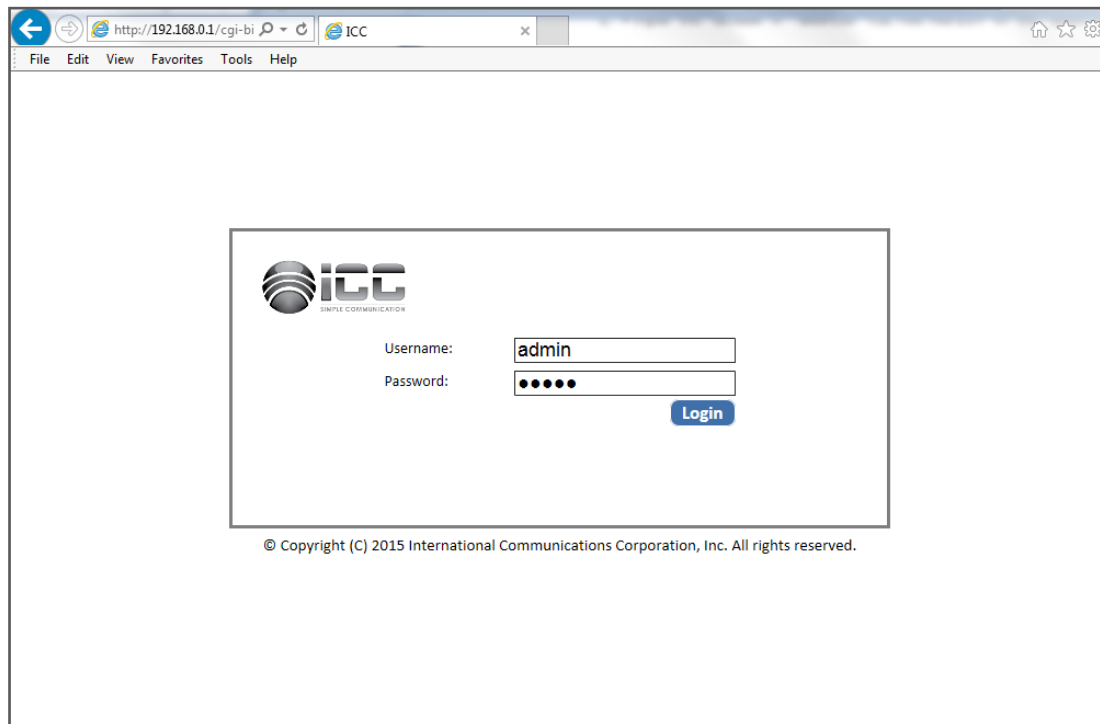
1. To configure PC IP address, fill 192.168.0.x (where 'x' is a numeric value) in “IP address” and 255.255.255.0 in “Subnet mask”(set Window7 as an example to show the properties)



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.



Login Web Network Management

The default Web login process and details are identified below.

Default Web login information:

User name: **admin**

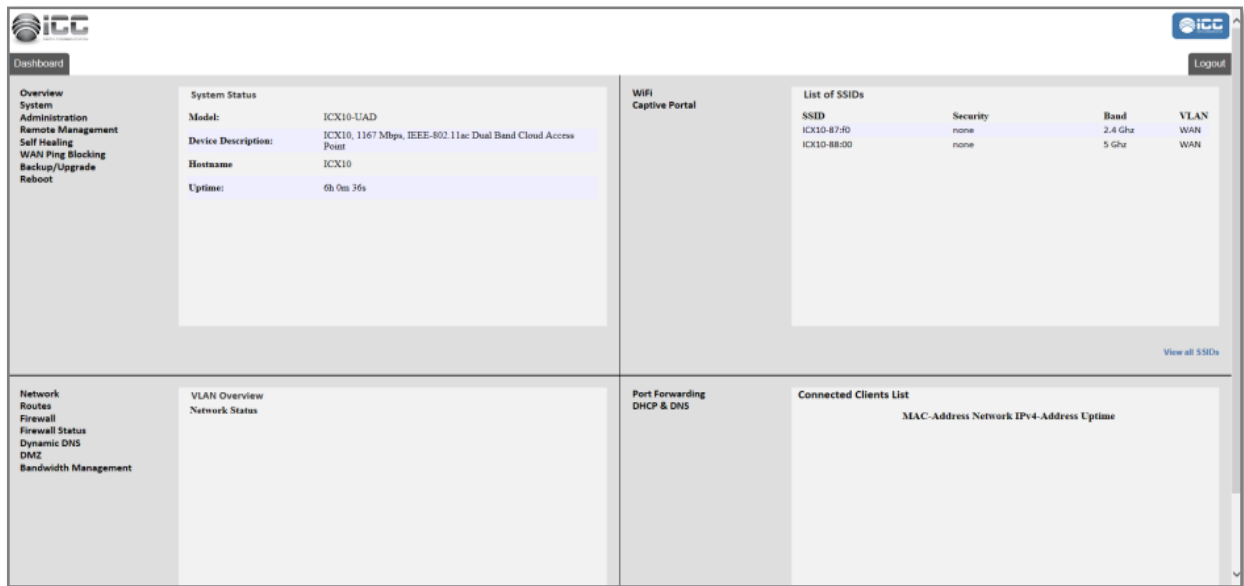
Password: **admin**

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 how to 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 120 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 120 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 in the 5.15 to 5.25 GHz, 5.745 to 5.85GHz 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 ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est 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 empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

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™ ICX20UAD, 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: ICX20UAD 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.

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 ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est 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 empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

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 Réglementation d'Industrie Canada. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Waste of Electrical and Electronic Equipment



Directive 2002/96/EC on Waste of Electrical and Electronic Equipment are designed to tackle the fast increasing waste stream of electrical and electronic equipment and complements European Union measures on landfill and incineration of waste. CIG products at end of life are subject to separate collection and treatment in the EU Member States and therefore are marked with the symbol.

European Union RoHS



EU Restriction and Hazardous Substances Directive 2011/65/EC (RoHS) restricts the use of specific hazardous materials in manufacture of electrical and electronic equipment. Specially, restricted materials are Lead, Cadmium, Mercury, Hexavalent Chromium, and Bromine. CIG products comply with this requirement and all marked with “RoHS” shown at the left.

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 thirt(30) 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

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