

C36

WK-1 Compatibility Only

Enterprise-class, Full managed, Wireless
Access Point Controller

User Manual V1.2



FCC Certifications



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

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.

CE Mark Warning



This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 Class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

The company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Trademarks:

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WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. THE UNIT MUST NOT BE EXPOSED TO DRIPPING OR SPLASHING WATER. CAUTION: DO NOT OPEN THE UNIT. DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE INSTALLATION AND TROUBLESHOOTING INSTRUCTIONS. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL. CAUTION: THIS DEVICE MUST BE INSTALLED AND USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AS DESCRIBED IN THE USER DOCUMENTATION THAT COMES WITH THE PRODUCT. WARNING: POSTPONE INSTALLATION UNTIL THERE IS NO RISK OF THUNDERSTORM OR LIGHTNING ACTIVITY IN THE AREA.

Safety Precautions:

To reduce the risk of fire, electric shock, and injury to persons, always follow basic safety precautions when using this device:

- Read all of the instructions (listed here and/or in the user manual) before you operate this equipment.
- Comply with all warning and caution statements in the instructions.
- Retain the instructions for future reference.
- Observe all warning and caution symbols that are affixed to this equipment.
- Comply with all instructions that accompany this equipment.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.
- Installation of this product must be in accordance with national wiring codes and conform to local regulations.
- Give particular attention to all safety precautions.
- Operate this product only from the type of power source indicated on the product's marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- It is recommended that the customer install an AC surge protector in the AC outlet to which this device is connected. This is to avoid damage to the equipment from lightning strikes and other electrical surges.
- Wipe the unit with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the unit or use forced air to remove dust.
- Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.
- Do not directly cover the device or block the airflow to the device with insulation or any other objects.

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Quick Controller Overview

The front panel of the C36 has a pair of blue LEDs. See the below table for more information.

Label	Function	Description
HDD	Hard drive activity	When lit, the hard drive is in use
PWR	Power indicator light	When lit, indicates that unit has power

The rear panel is where the physical cabling (power, Ethernet, console) is located. The table below describes each port and its function.

Name	Description
AC Connector	AC110 ~ 260V
Power Switch	Provides power to the C36
USB ½	Maintenance
LAN	MDI/MDIX RJ45 interface for connection to the LAN
HDMI	HDMI display for maintenance purposes
Console	Local management, 115200bps, RJ45 interface

Preparing to Install the Controller

Installing the C36 is similar to installing a network switch. If you have installed a managed switch before, the process will be very similar.

Tools required:

- Phillips screwdriver (if using rack-mount brackets).
- PC or laptop with Ethernet interface and a web browser (an integrated DB-9 port or USB-to-Serial adapter may be necessary if you would like to use the console interface).
- Ethernet cable.

Installation

1. Open the box and remove the unit.
2. If mounting C36 in a standard 19" AV rack, attach the rack-mounting brackets that come with the C36. If not rack-mounting, ensure that C36 is physically mounted near power and network connections (i.e, backbone switch or firewall/router).

Setting Controller IP Address

1. Connect the controller to power and push the power switch on the rear panel. The PWR LED will light up and the fans will start.

Configure C36 with a router in your network:

If you are using a router that has an internal IP address of 192.168.1.X, then you can connect the controller to an available port on your router or a network switch and skip to run the The Wizard. Connect an Ethernet cable from the C36 to your router while the router is on.

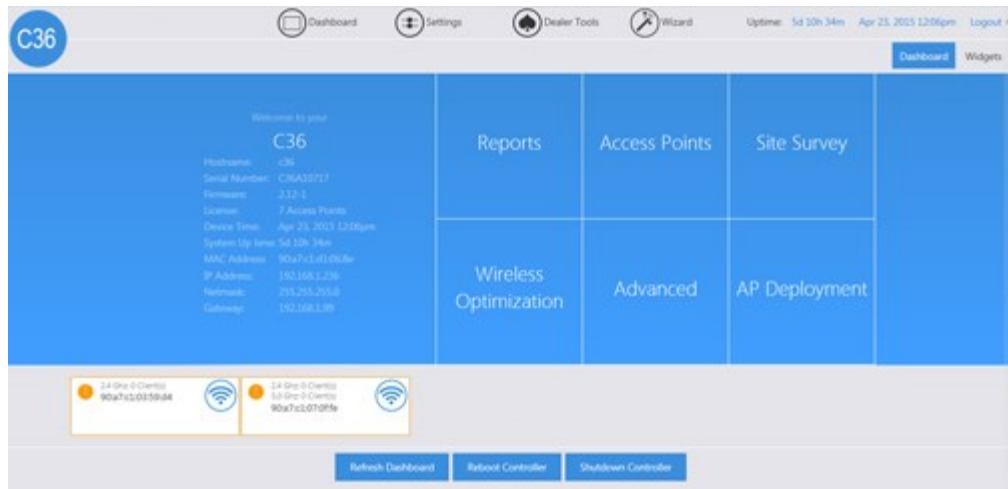
Configure C36 using a PC directly:

If your router is using an IP scheme other than 192.168.1.X, or you want to configure the C36 directly using a PC, you can connect an Ethernet cable from your computer to the C36. Configure the PC with a static IP address of 192.168.1.10 and subnet mask of 255.255.255.0 and then open any browser (Mozilla Firefox is preferred).

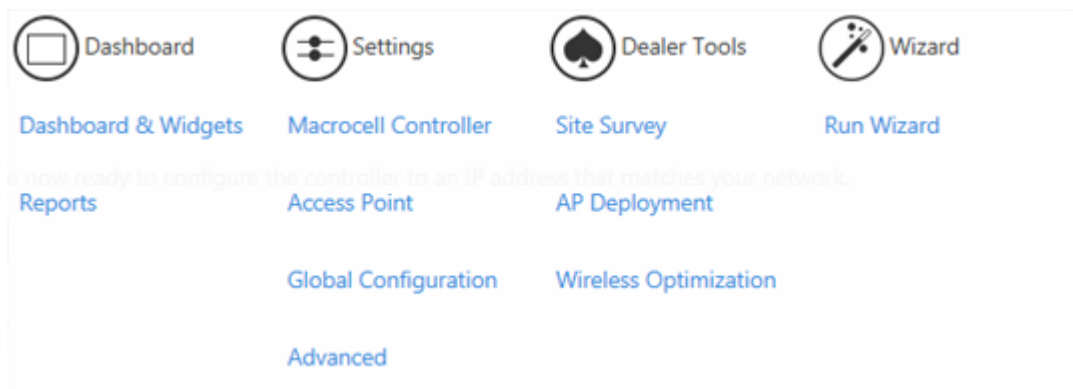
2. In the browser, enter the C36's default IP address of 192.168.1.236 into the address bar and press <ENTER>.
3. A webpage will appear prompting you for a username and password. Enter **pakedge** as the username and **pakedgec** for the password. Then click **Login** to log in to the web administration portal.



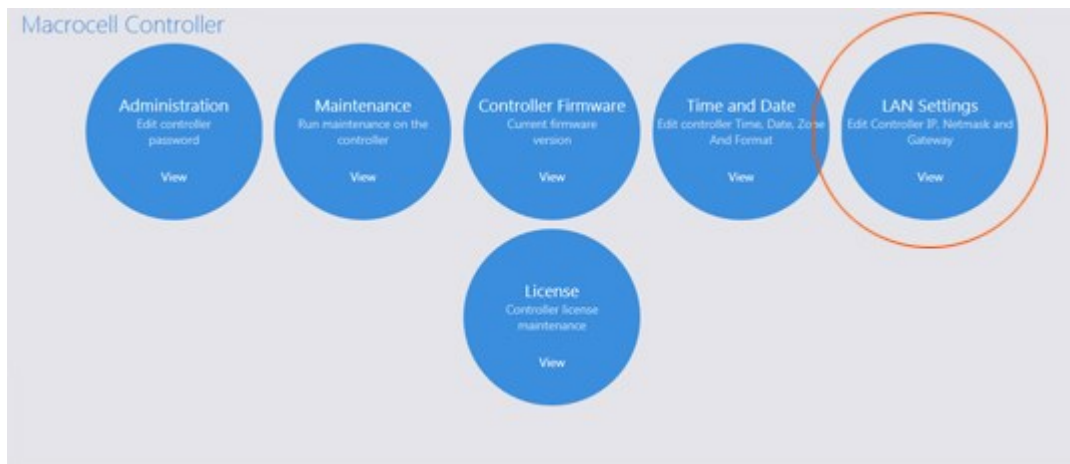
- Once you have logged into the controller, you will see the Dashboard.



- Hover your mouse over **Settings** towards the top. Click **Macrocell Controller**.



- Click **LAN Settings**.



- Enter the correct IP address information. Click **Save** to finalize the settings. You can now connect the controller to your network and run **Wizard**.

The screenshot shows a 'LAN Settings' form with the following fields and values:

IP:	192.168.1.236
Netmask:	255.255.255.0
Gateway:	192.168.1.99
Hostname:	c36

A blue 'Save' button is located at the bottom center of the form.

The Wizard

The Wizard will discover, manage and configure your access points, making it a quick and easy tool for getting your wireless network set up and running.

Note: If this is your first time logging into the C36, you will be prompted to run the **Wizard**.

AP(s) Configuration

The c36 has detected that your AP(s) have not been configured.
Would you like to run the Wizard to guide you through the configuration process?

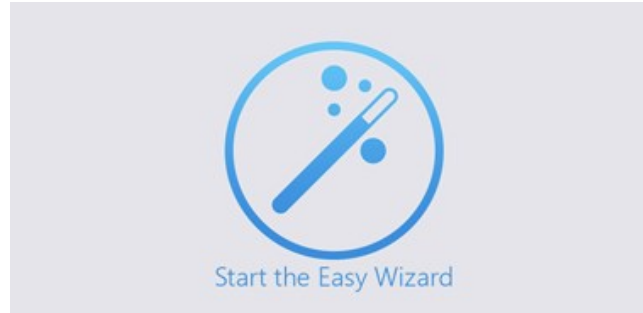
Two blue buttons are displayed: 'Run Wizard' on the left and 'Cancel' on the right.

Otherwise, log in to the C36 and hover your mouse over the Wizard towards the top. Click **Run Wizard**.

The screenshot shows a dashboard menu with the following items:

- Dashboard (with icon)
- Settings (with icon)
- Dealer Tools (with icon)
- Wizard (with icon)
- Dashboard & Widgets
- Macrocell Controller
- Site Survey
- Run Wizard
- Reports
- Access Point
- AP Deployment
- Global Configuration
- Wireless Optimization
- Advanced

Click **Start** to begin the wizard setup.



Step 1: IP Address and Firmware

If your WK-1/WX-1 has the default 192.168.1.250 or a duplicate IP address, the C36 will ask you to configure the IP address of your access point.

Duplicate/Default IP Addresses Found

1 Duplicate/Default IP Addresses Found.
Please apply DHCP or set Static IP Addresses to continue.
You will be able to update the firmware afterwards.

Select "Static" or "DHCP"



Click **Apply DHCP** to get the dynamic DHCP from your router in the network. Please make sure your router is on and can assign IP addresses correctly.

Click **Static IP**, input your desired IP address range in the blanks, and click **Set**.

Specify IP Range

From:	To:
192.168.1. <input type="text" value="111"/>	192.168.1. <input type="text" value="111"/>
Subnet Mask	
<input type="text" value="255"/>	<input type="text" value="255"/>
.	.
<input type="text" value="255"/>	<input type="text" value="0"/>

IP Address Currently in Use

192.168.1.252 192.168.1.250 192.168.1.236 192.168.1.99



If the IP address of your WK-1/WX-1 has been configured, this step will be waived.

The access points must all be on the same firmware version. If there is any inconsistency in the firmware version, the C36 will notify you as following:

Update AP(s)

1 of your AP(s)s have an older firmware and must be updated.

To update now, click "ok"

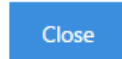


Click **Ok** to upgrade to latest AP firmware. The firmware upgrade process will take a few minutes.



Once you see the following message, you will know the update was successful.

AP Firmware

The AP(s) have the latest firmware. No update is required.



Once the firmware upgrade is completed, you will be redirected to the AP-Firmware update page.

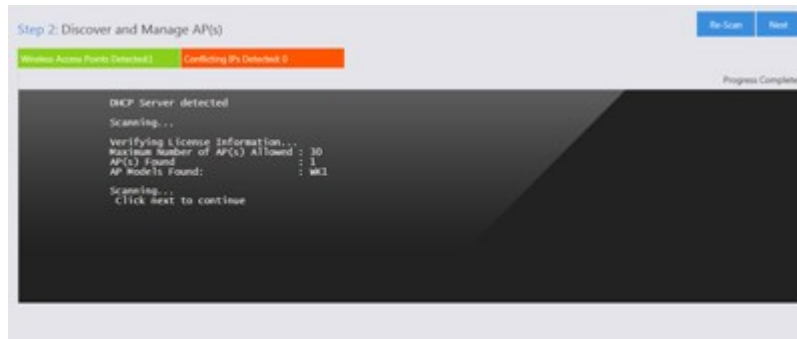
The icon -  indicates which access points have an older firmware and which version they should be updated to. Select the highlighted APs and click on **Upgrade**. Once the process is complete, all your access points should display a green icon like this: 

IP	AP Model	Operating Mode	Active Firmware	Latest Firmware	MISC Address	Status	
192.168.1.11	WK1	Access Point	1.00	0.90	90a7c10802b2		<input type="checkbox"/>

Click **Next** to continue to the next step.

Step 2: Discover and Manage AP(s)

The C36 will detect the DHCP server on the network, which is usually a router. Click **Next** to continue.



Step 3: Global Configuration

WK1 Global Configuration

Select Number of SSID's to Broadcast: Enable Band Steering:

SSID:

Suppressed SSID: off on

Station Separation: off on

Security:

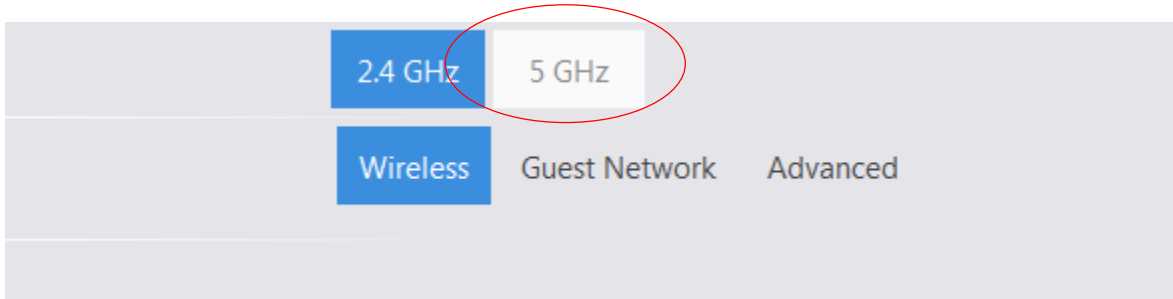
Passphrase:

Enable Pakedge Zone: off on

SSID 1

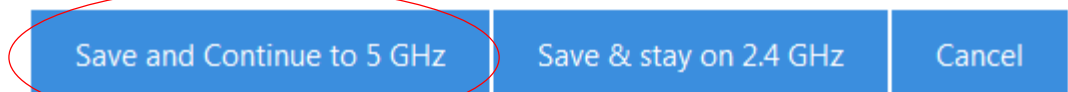
1. The Wizard will ask you how many SSIDs you would like to configure. You can configure up to 18 SSIDs (8 on the 2.4 GHz and 8 on the 5 GHz, in addition to a guest SSID for each band).
2. Once you have selected the number of SSIDs you wish to use, you will be able to configure them individually.
3. Bandsteering moves 5 GHz-compatible client devices to that frequency. This is beneficial when you have devices that operate on an older wireless standard, such as wireless G or B. You can keep slower devices on the 2.4 GHz band and move the faster clients onto the 5 GHz band.

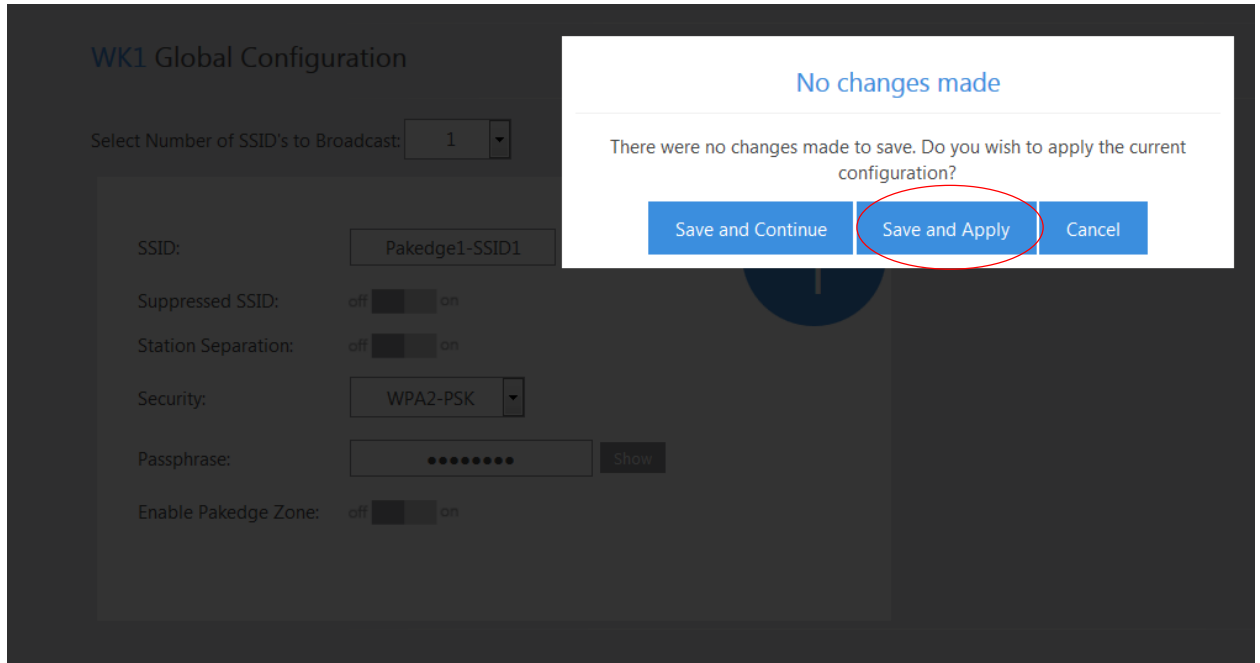
Once you enable band steering under the 2.4 GHz band, you need to make sure all the 2.4 GHz settings match the 5 GHz settings. The best way to do this is to make all your changes under the 2.4 and click **Save and Continue to 5 GHz**. This will copy your 2.4 GHz settings over to the 5 GHz, including any guest network settings you may have configured. Once you are done making the changes, click **Save**, then **Save and Apply** to apply your changes.



Save Changes

There were changes detected. Do you want to save before leaving?





4. If you do not enable bandsteering, please make sure that your SSIDs have different settings. Without bandsteering enabled, you cannot have an SSID on the 2.4 with the same exact settings as an SSID on the 5 GHz.
5. Once you have selected the number of SSIDs you want, you can configure the SSID name, security, password, etc.

Advanced Settings in Global Configuration

Under the Advanced tab you will encounter two options.

- **802.11 Mode:** This will allow you to set the mode of the access points. By default, it is set to B/G/N. This means that any wireless devices that support these modes will be allowed to connect. You can set the mode to any of the following choices:
 - For 2.4 GHz
 - G/N (Default)
 - B/G/N
 - B/G
 - N
 - G
 - B
 - For 5 GHz
 - A/AC/N-Mixed
 - AC/N-Mixed
 - AC Only
 - N/A-Mixed
 - A-Only

- N-Only
- **Channel mode:** This option will allow you to set the channel width of your access points. When set to 40 MHz, the access points will be allowed to use more channels to increase throughput (speeds). Although this can be beneficial, it can also cause issues. If you are in a populated area, using more channels will increase the chances of encountering interference. A 20 MHz channel mode is recommended for areas with many nearby access points. For the 5 GHz band, you have the option to select 20, 40, or 80. Please note the 80 is only available when the AP is in AC mode.

Guest network (optional)

1. The Guest Network is designed for routers that do NOT support VLANs. The Guest Network acts as its own network with no communication to other SSIDs.
2. To enable and set the security settings on the guest SSID, click on the guest network option towards the upper right hand side.
3. Here you can change the SSID and password of the guest network.
4. After making your changes under the Guest Network, click on the **Wireless** tab to save and apply your changes.

Enable: off on

SSID:


Station Separation: off on

Security:

Guest

After making your changes, please go back to the wireless tab to Save and apply your changes

5. Applying Changes will push the configuration to the access points. Once the C36 is done applying the configuration to the access points, you will be redirected to the Access Point Overview page.



AP Location	Model	IP	Operating Mode	Channel	MAC Address	Power	License	Status	
jaber-test	WK1	192.168.1.118	Access Point	24 6	90a7:c1:08:02:b2	24 31 dBm		1 Online	<input type="checkbox"/>
				1 44		1 31 dBm			<input type="checkbox"/>

Dashboard

The dashboard will display connected access points at the top.

Dashboard & Widgets

You can click on the Widgets button towards the upper-right hand side to display all of the widgets on the C36.



The widgets display important information about the C36.

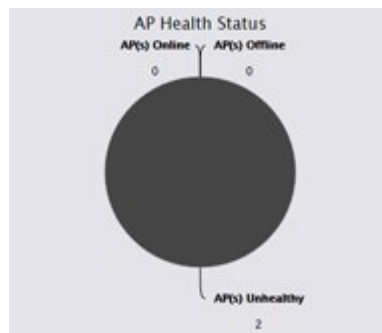
- **CPU Consumption:** Measures how much of the C36's CPU is being used. For best performance, keep it below 65%.

- **Memory Consumption:** Measures the C36 memory usage. For best performance, keep it below 60%.



- AP Health Status: Displays Online, Unhealthy, and Offline APs.
 - Online AP: APs are configured and online.
 - Unhealthy AP: APs either:
 - Do not have the correct configuration.
 - Are unmanaged by the controller and therefore cannot be configured
 - Offline AP: The C36 cannot find the APs. APs with default IP addresses at 192.168.1.250 will also be listed under this section.

You can also click on the graph to get more details about which APs are online/offline/unhealthy.



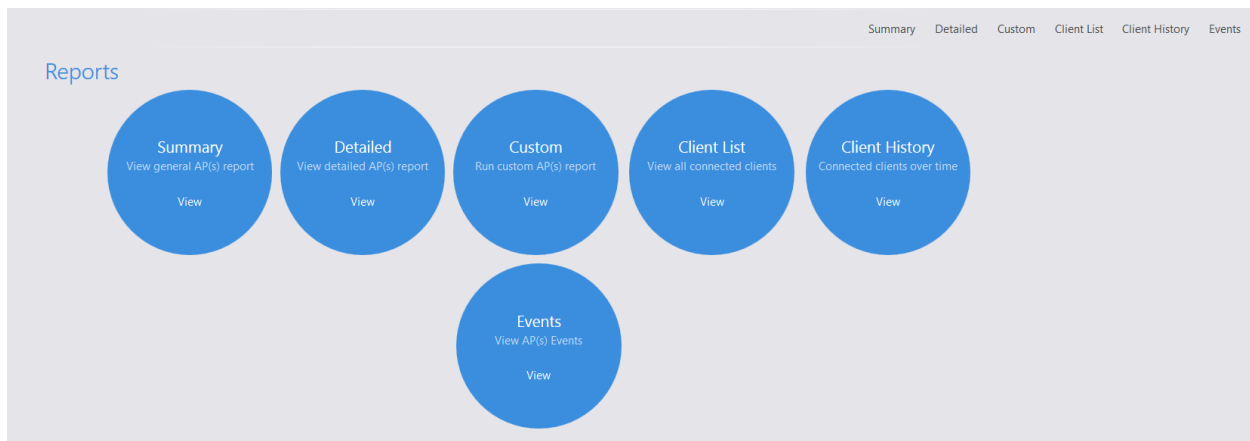
Clients per AP: This widget will show you all the clients connected to your APs. You will see a bar graph that lists the number of devices per AP. You can click on this bar to get more information about the connected device, its MAC address, and signal strength.



MAC filter and WiFi schedule: This section will display any current WiFi schedules or MAC filter policies.

Reports

The Reports page gives you summarized and detailed information about your access points and the connected clients. In addition, this section provides logs, when APs go offline/online, and whenever the global configuration is updated.



Reports has 5 sections:

Summary

Provides basic information about your access points, like MAC address, AP model, AP mode (B/G/N), wireless channel, AP firmware version, IP address of the AP, and the default gateway. If you prefer to not see the MAC address of the AP under Device, you can change the location name under Settings – Access Point.

Device	Model	Mode	Channel	Firmware	IP	Gateway
90a7c108003c	WK1	N/G	6	1.08	192.168.1.114	192.168.1.99
90a7c108003c	WK1	A/N/AC	36	1.08	192.168.1.114	192.168.1.99
90a7c10801e2	WK1	N/G	2	1.08	192.168.1.117	192.168.1.99
90a7c10801e2	WK1	A/N/AC	36	1.08	192.168.1.117	192.168.1.99

Detailed

Provides additional information about your access points and the clients connected to them. You will also see a list of SSIDs, the VLAN of each SSID, the security settings of each SSID, and the number of clients connected to each AP. You can click on the number of clients connected to see a list of the devices with their MAC addresses and the signal strength.

Custom

Allows you to create your own reports with the information in the order you prefer. Click **Create** to create a report.

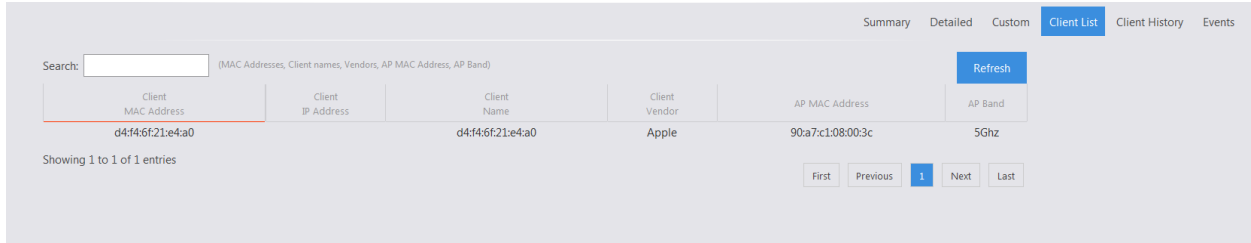
1. Select the APs you want to monitor from the Available AP section. The order in which the APs are displayed under Monitored AP will be the same on the custom report.
2. Select the data you want to view from the Available Data section. The order in which the fields are listed will be the same in the custom report.
3. Name the report in the **Save As** field and click **Apply**.
4. The new custom report will now be available just to the right of Detailed.

Name	Date	Time	AP Address
AP is offline	Apr 28, 2015	09:42:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:42:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:37:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:37:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:32:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:32:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:27:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:27:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:21:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:21:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:16:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:16:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:11:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:11:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:06:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:06:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:01:45A	90a7c05180a4
AP is offline	Apr 28, 2015	09:01:45A	90a7c05180a4
AP is offline	Apr 28, 2015	08:56:45A	90a7c05180a4
AP is offline	Apr 28, 2015	08:56:45A	90a7c05180a4

Edit/Delete a Custom Report: If you need to edit or delete a custom report, select Custom under Reports and choose the custom report you need to edit/delete from the drop down box. After hitting Edit, you can make adjustments to the custom report and select Update. If you want to completely remove the report, click Remove.

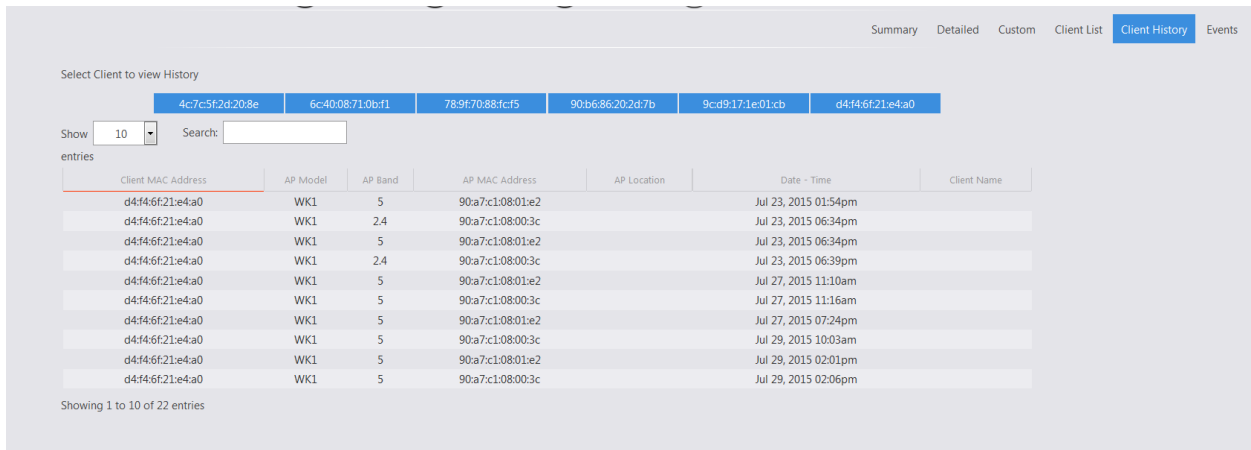
Client list

The client list displays all of the devices connected wirelessly.



Client History

Client history shows a list of the clients and indicates the time those clients moved from one AP to another or one band to another.



Events

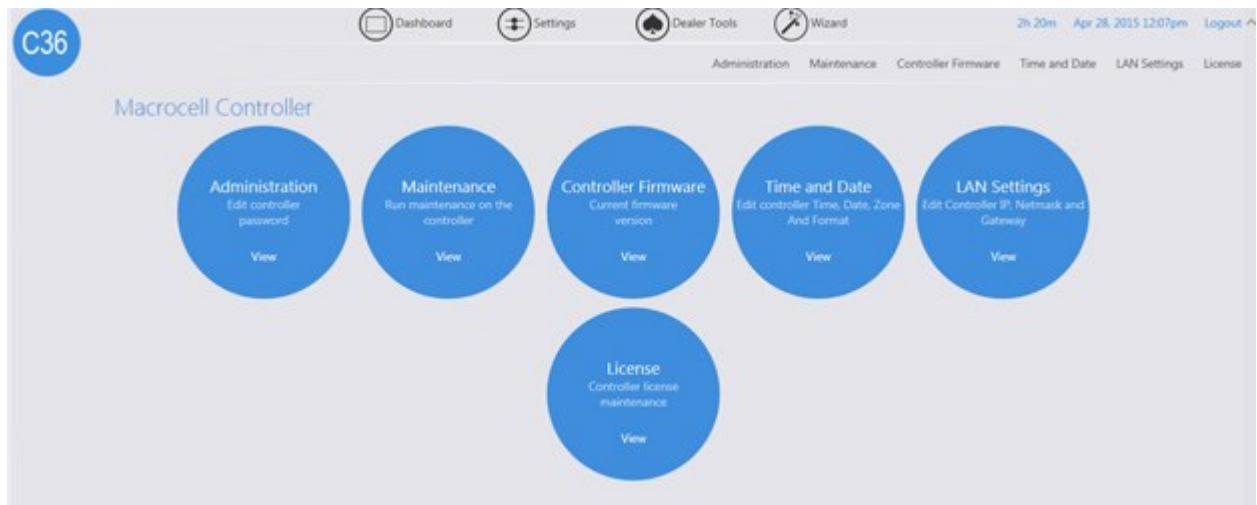
The Events tab displays when global configurations are updated, as well as when an AP goes offline or come back online. The date, time and AP affected are recorded as well.

Device	Date	Time	AP Address
AP is offline	Apr 28, 2015	09:42 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:42 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:37 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:37 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:32 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:32 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:27 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:27 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:22 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:22 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:18 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:18 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:13 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:13 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:08 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:08 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:03 AM	10a7c05195a6
AP is offline	Apr 28, 2015	09:03 AM	10a7c05195a6
AP is offline	Apr 28, 2015	08:58 AM	10a7c05195a6
AP is offline	Apr 28, 2015	08:58 AM	10a7c05195a6

Settings

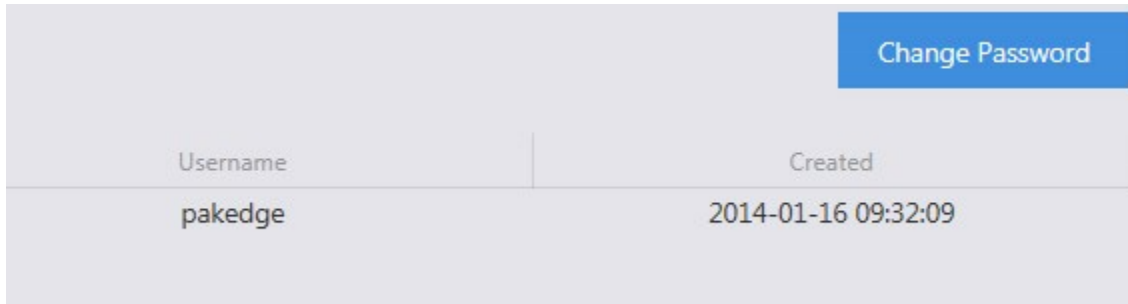
Macrocell Controller

The Macrocell Controller option has 7 sections to it. Here you will be able to perform functions such as changing the password to the controller, resetting the controller, updating firmware, and much more.



Administration

Here you can change the default password by clicking **Change Password**.



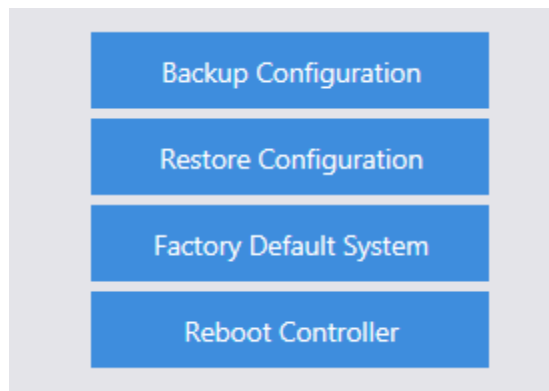
Username	Created
pakedge	2014-01-16 09:32:09

Change Password

Maintenance

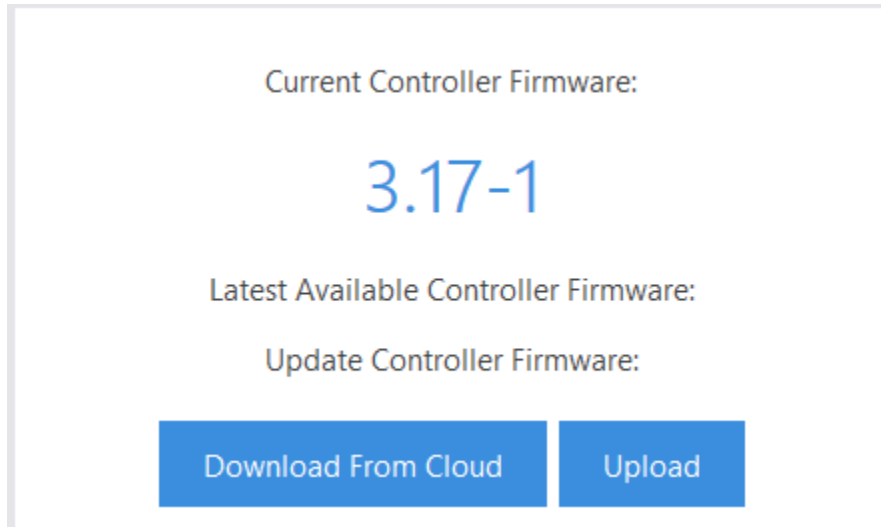
Here you can perform several functions. Each function is covered in the next section.

- **Backup Configuration:** The C36 allows you to back up configurations you made to the controller if you ever need to factory default the C36. These changes include the global configurations, IP addresses, and host names.
- **Restore Configuration:** Allows you to restore your saved configuration page.
- **Factory Default Controller:** The controller and the AP will reset to default settings.
- **Reboot Controller:** If needed, you can reboot the controller.



Controller Firmware

If you have a new firmware, you can upload the file manually or download the latest from the cloud and then apply it to your controller.



Time and Date

In this section, you can set the time, date, country, and whether you want the time displayed in a 12 or 24 hour format.

Time and Date

Set Time and Date Automatically

Date and Time: 08/03/2015 03:31 pm

Time Zone (GMT-08:00) Pacific Time (US & Canada)

Country United States

Time Format 12 hour

[Apply](#)

LAN Settings

Change the IP address, subnet mask and gateway of the C36.

LAN Settings

IP:	<input style="width: 60%;" type="text" value="192.168.1.236"/>
Netmask:	<input style="width: 60%;" type="text" value="255.255.255.0"/>
Gateway:	<input style="width: 60%;" type="text" value="192.168.1.99"/>
Hostname:	<input style="width: 60%;" type="text" value="c36"/>

License

This section displays each access point and its license status. If you are getting a red thumbs down, verify that you have enough licenses for all the access points, that the firmware is up-to-date on each AP, and that they are being managed by the C36.

License Information

Your License allows up to

INTERNAL USE

1 Ap(s) Found

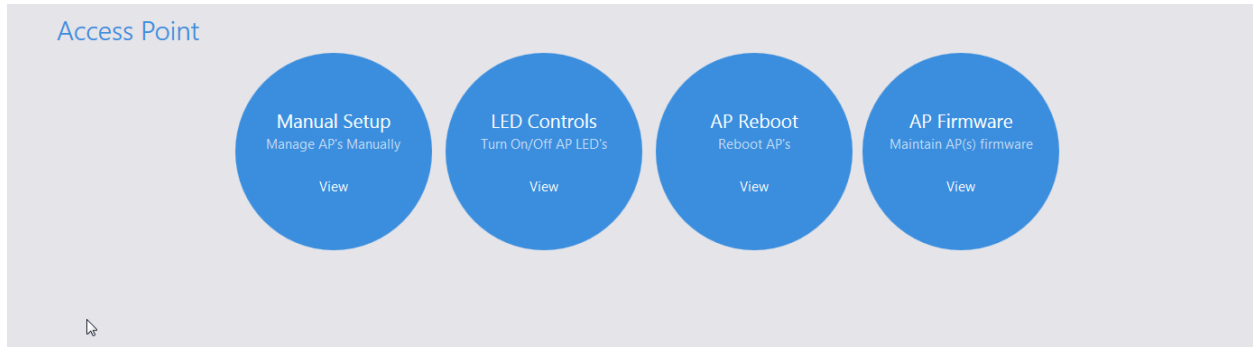
1 AP(s) ↑

0 AP(s) ↓

Location	Model	IP	MAC Address	License
WK1		192.168.1.114	90:a7:c1:08:00:3c	↑

Access Point

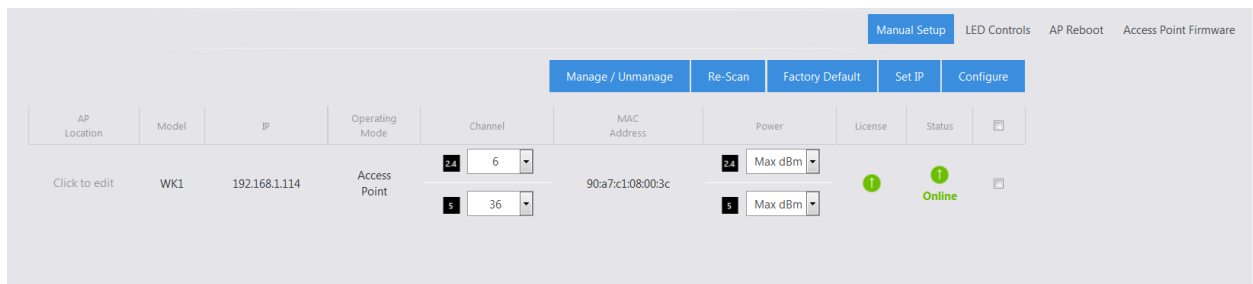
The access point section will show you how to manually configure and reboot access points. This section also shows you how to adjust the LED lights of your access points.



Manual setup

You can configure your access points manually under the Manual Setup page if you decide not to use the Wizard. You would also use this section if you add an additional access point without rerunning the Wizard. Below is a detailed explanation of all the options under the AP Settings page.

AP Location: You can edit and rename this field for a better understanding of the access point's physical location (for example, Upstairs Bedroom).



Remove: If you removed an access point from your setup and don't want it to stay listed in the AP table, select it and click Remove.


Manage/Unmanage: This option allows you to toggle an access point between managed and unmanaged. If you want to make an AP a standalone device again that is no longer managed by the C36, here is where you can do so.

Re-Scan: Scans for changes like new access points and Status.

Factory Default: If you are having any problems configuring the APs, you can always set them back to factory default.

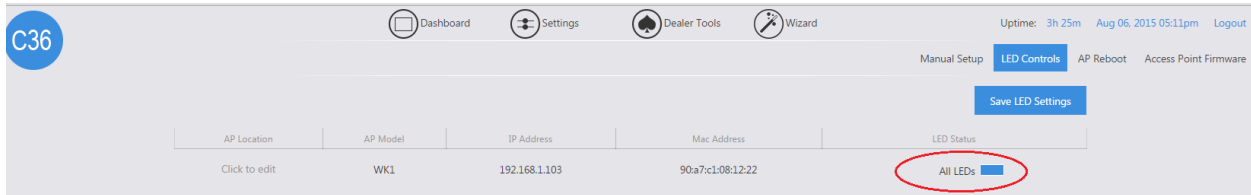
Set IP: By default, all the IPs will have the same address of 192.168.1.250. Part of the configuration process is to change the IP addresses of all the APs. You can choose to change the IP using DHCP or set a static IP address.

Configure: This will apply the global configuration to the selected AP(s).

You can change the channel and transmit power under the Channel and Power options. Make sure you click  after making the changes.

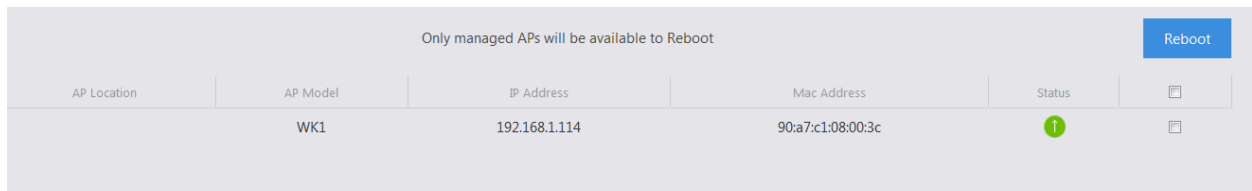
LED Controls

The C36 is able to configure LEDs on your access points. Click the On/Off switch to change the power status of your WK-1/WX-1 LEDs.



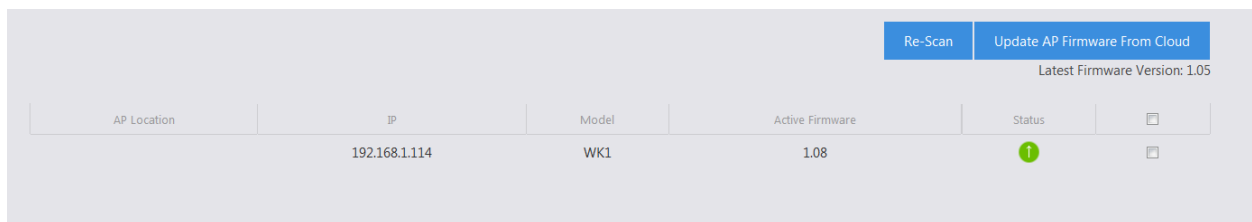
AP Reboot

The AP reboot section will allow you to either individually reboot an access point or multiple access points at once. To reboot an access point, simply click on the checkbox next to an access point.



Access Point Firmware

The AP firmware can be upgraded from the cloud. The controller always checks for the latest AP firmware on the cloud and compares it against the firmware running on your AP. If you have an outdated firmware, the controller will give you the option to update to the latest version.

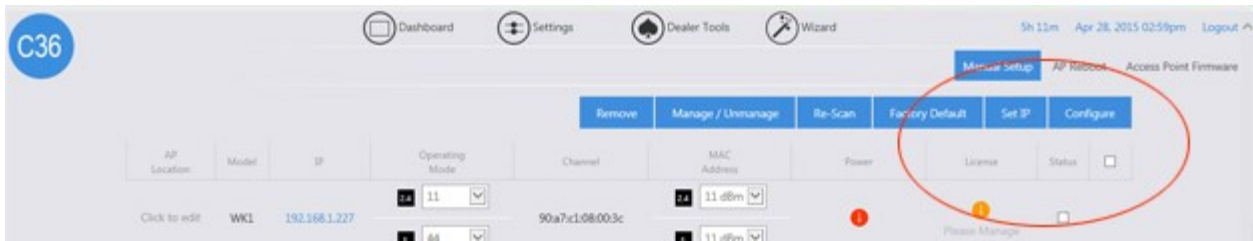


Re-Scan: after updating the firmware, you can do another scan to detect the new firmware on the AP(s) and verify they are all on the correct version.

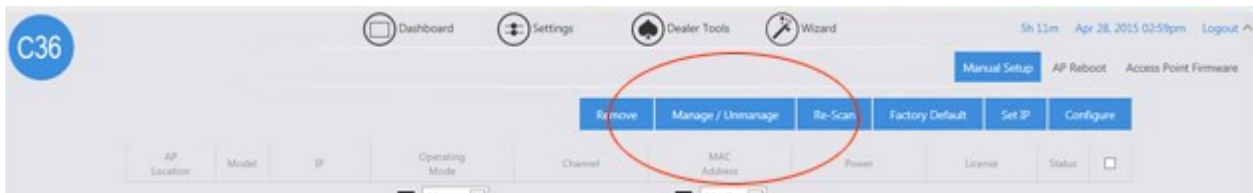
Adding an Additional Access Point



Below are the steps for adding an additional AP to an existing system:

1. If you are adding a new AP out of the box, the default IP address should be 192.168.1.250. The Status will blink Set IP. Select the checkbox next to it and select **Set IP**.



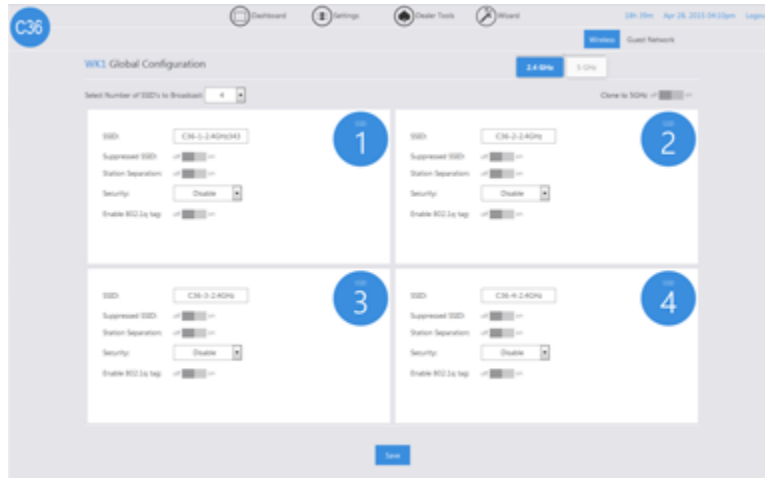
2. After setting a static IP or letting the access point obtain one from the DHCP (recommended), the C36 will check the new access point's firmware to see if it matches the firmware of the existing units. If the firmware is out-of-date, you will need to go to the Access Point Firmware section to update the firmware on the AP.
3. When the firmware on all access points match, the status will display Please Manage. To do so, check the box for the AP and select **Manage/Unmanage**.



4. Now that the access point is managed, you will see that it needs to be configured. Again, select the access point and click Configure . The C36 will now push the global configuration to the new AP.
5. Once finished, the access point will display as online .

Global Configuration

The settings for the Global Configuration section have already been discussed earlier in this manual, in the section The Wizard Step 3: Global Configuration. If you decide to make any changes to your SSIDs or enable/disable the guest network, you can always refer back to the Global Configuration page, make the necessary changes, and apply the configuration to the APs.



Advanced MAC Filtering

MAC filtering allows you to block certain devices from connecting to your wireless network. To block a device, go to **Settings > Advanced > MAC Filtering**. Click on **Add**. Under Device Name, give it a name to distinguish it and enter the device's MAC address. You will then see a list of access points on the network and pick which AP and even which band (2.4 GHz or 5 GHz) you want to block the device from. After making the necessary changes, click **Save**. You will be redirected to the main MAC Filtering page. The main MAC filtering page allows you to edit the entry created, remove it or just apply the changes. Please note that your MAC filtering changes will not be activated until you hit **Apply**.

Add MAC Filter

Device Name
John's iPhone

Device MAC Address
d4:12:43:45:43:12

Select the AP(s) and band you would like to block this device from

Show entries Search:

Location	MAC	Model	Band	Choose All
	90:a7:c1:b8:01:00	WX1	2.4 5	<input type="checkbox"/> <input type="checkbox"/>

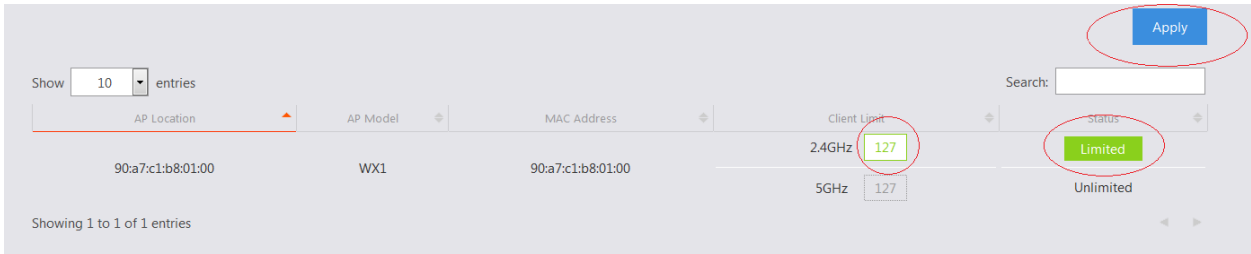
Showing 1 to 1 of 1 entries

MAC Filtering

Client Name	MAC Address	AP's Effected	Select All Devices
John's iPhone	d4:12:43:45:43:12	90:a7:c1:b8:01:00 WX1	<input type="checkbox"/>

Client Limit

In some cases you may want to set a limit on how many devices can connect to your AP. This is useful when you have multiple APs and plenty of coverage, but somehow the devices decide to stick to one AP instead of spreading out to multiple ones. You can limit the number of client devices by going under **Settings > Advanced > Client Limit**. By default, the client limit is disabled and set to unlimited. If you want to enable it, first make sure your AP is managed and configured. Then go to **Status** and click on **Unlimited**. You will be allowed to enter a value between 0 and 127 in the box right under **Client Limit**. After you are done making the necessary changes, click **Apply**.

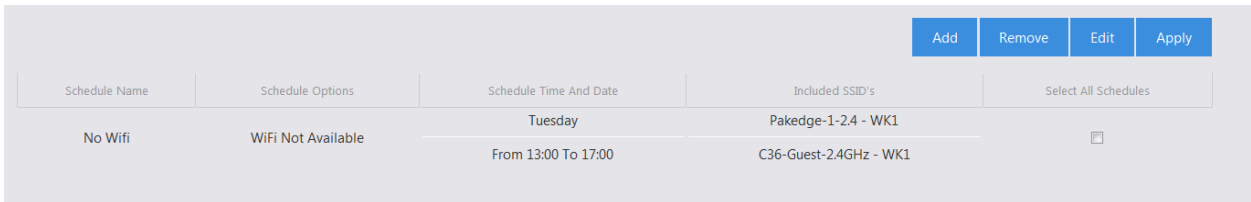


Scheduling

You can create schedules for each SSID on your network. Creating a schedule for an SSID gives you control over when to enable or disable the broadcast of a specific SSID on the network. As an example, you may want to limit your kids' internet access to certain times and days of the week.

To create a schedule, go to **Settings > Advanced > Scheduling**. Click **Add**, give the schedule a name, and select your desired settings. If you enter a time, please make sure the time is entered in a 24 hour format. Make sure you also select which SSID you want this schedule to apply to. Once you click **Save**, you will be redirected to the main scheduling page where you need to click **Apply** to activate your schedules.

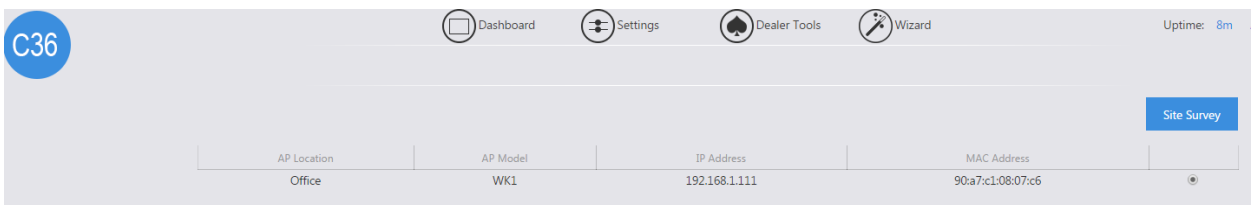
Please note that if you create a schedule that turns off Wi-Fi for an entire day, you will need to wait until midnight for the schedule to take effect.



Dealer Tools

Site Survey

Select the targeted access point and click **Site Survey**.



A new window will open and display the site survey utility. The selected access point will scan the frequency for devices currently broadcasting their SSID, and then will display them in the table.



AP Deployment

The AP Deployment page lets you upload floor plans onto the C36 and create a heat map for your site to assist with the placement of access points. This will help optimize wireless coverage throughout the property.

To configure AP deployment, follow these steps:

1. Navigate to Dealer Tools and click **AP Deployment**.
2. You will see a page explaining that the controller is scanning for access points. This page will disappear once the scan is over.

C36 AP Deployment

A. Scanning for Access Points

The C36 is currently scanning, checking the network for Access Points.

B. Checking for Existing AP Deployments

The C36 is checking for any existing Deployments you may have.

This panel will automatically close when scanning is complete.

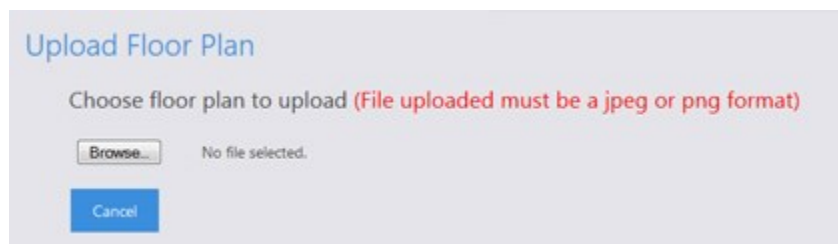
3. You will then be presented with the following page. Here you will be able to upload a floor plan onto the C36 and create the heat map.



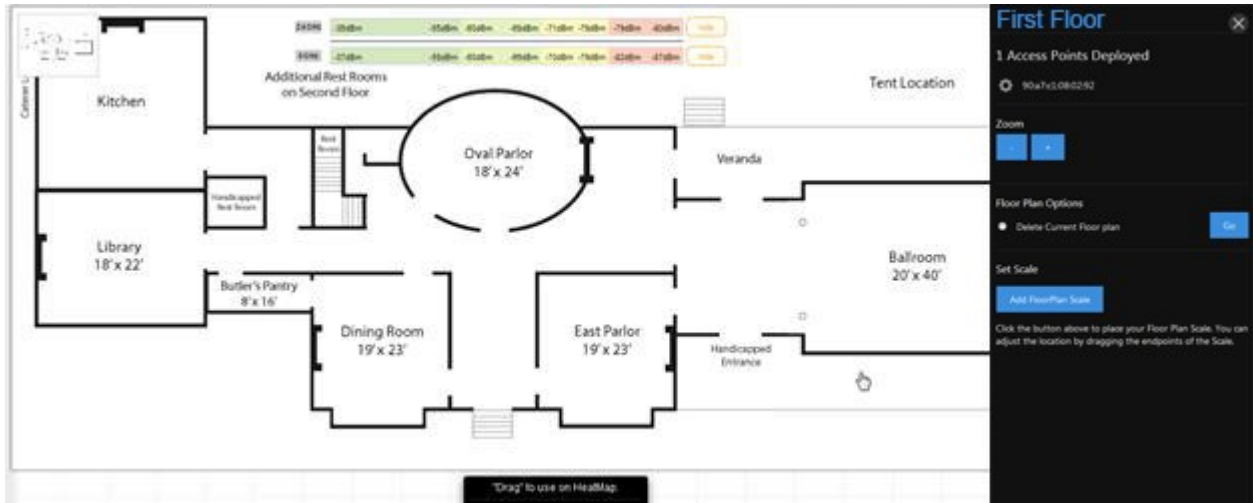
4. Click on **Upload Floor Plan**.



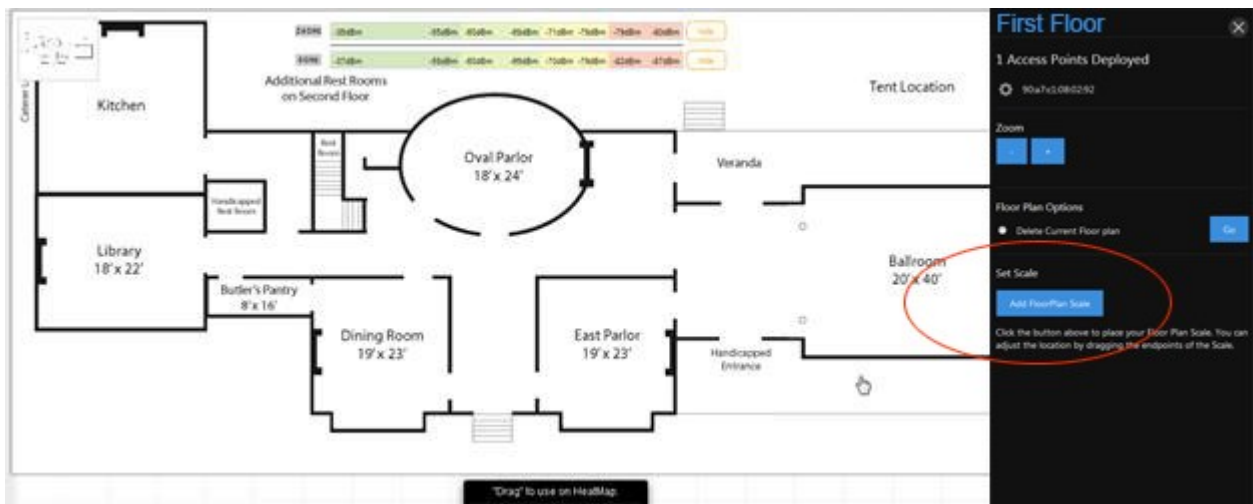
5. Upload your floor plan. Note that you can only upload .jpeg or .png file types.



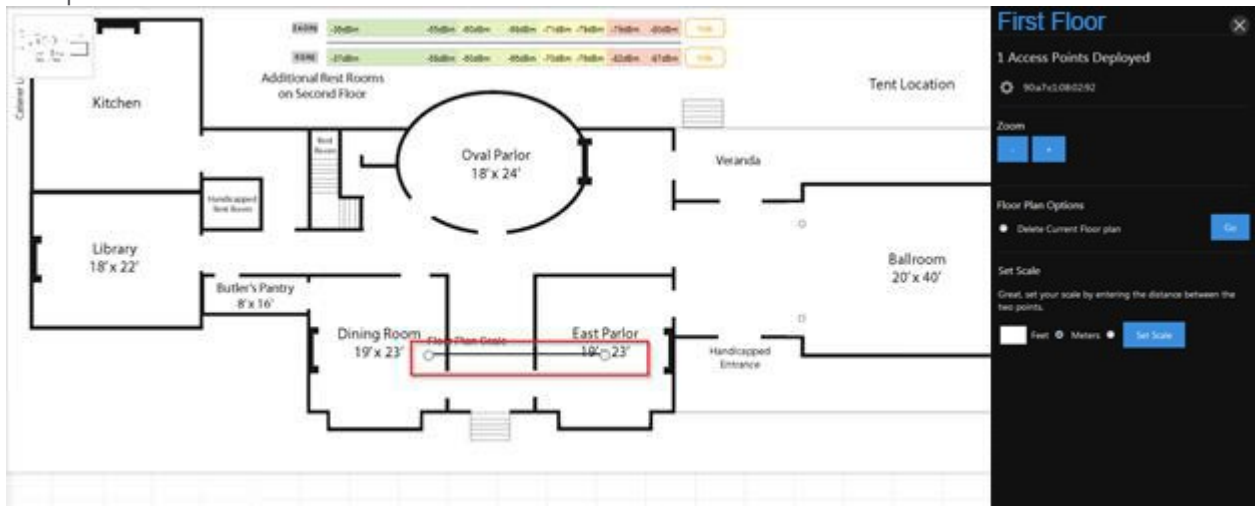
6. Enter a name for your floor plan and click **Continue**.
7. You will now see your floor plan on the C36.



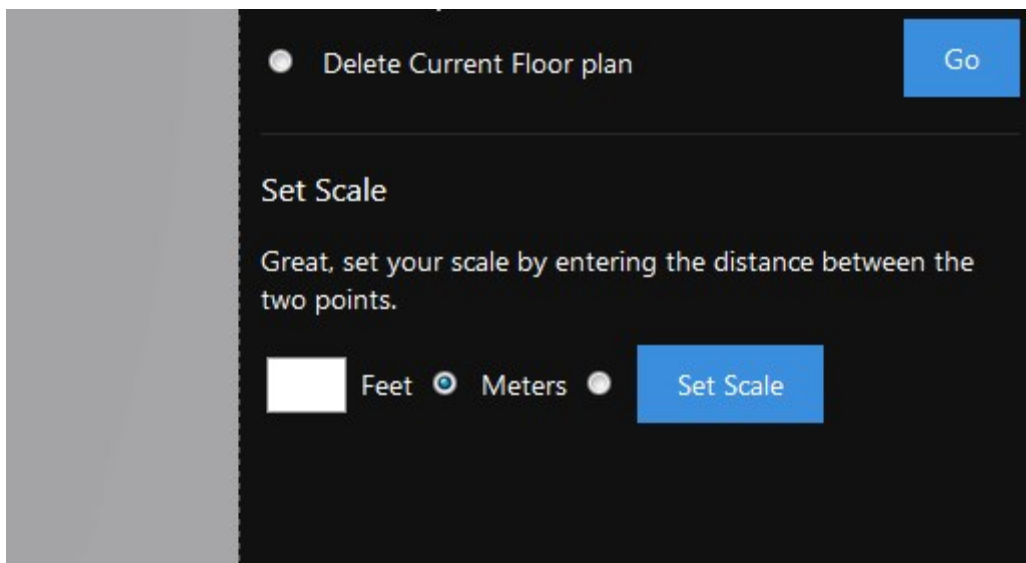
- Before you can add access points to the heat map, you will need to set a scale. This will tell the C36 how large the site is and display the proper coverage of an access point. To set the scale, click **Add Floor Plan Scale**.



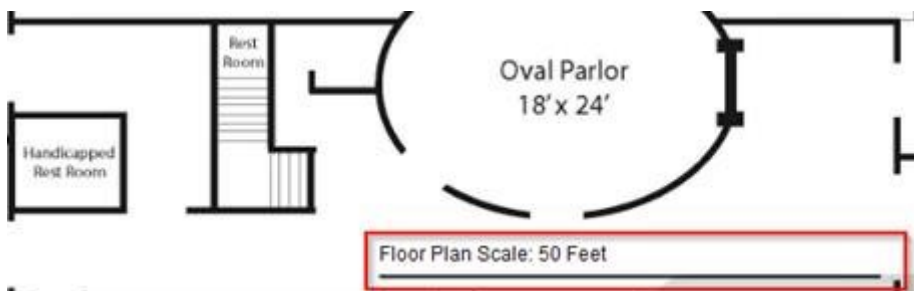
- You will now have a line that you can maneuver as you like. Move the end points to a spot on the floor plan with a known distance.



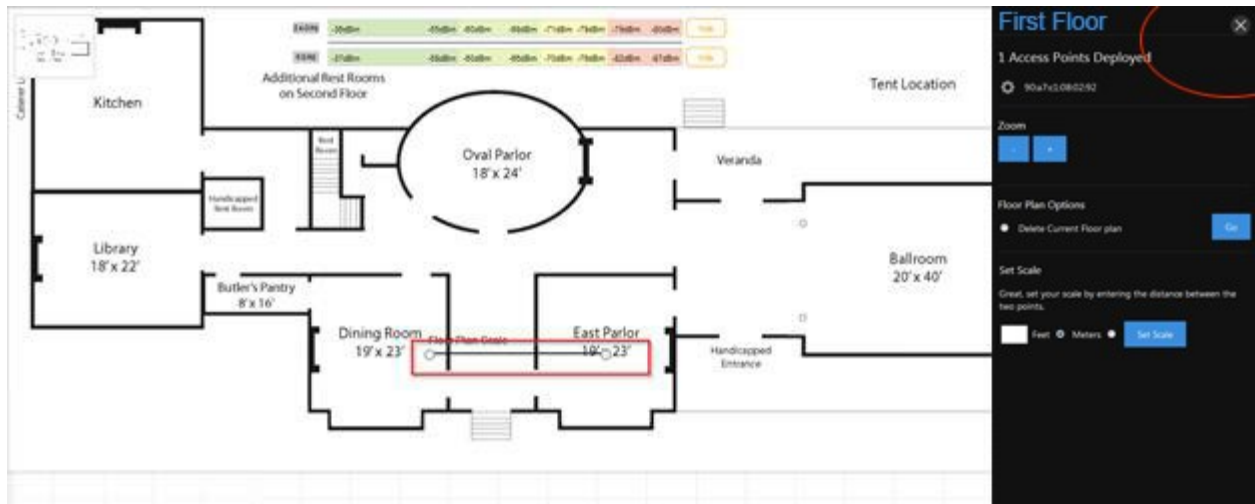
- Enter the distance in either feet or meters. Click **Set Scale**.



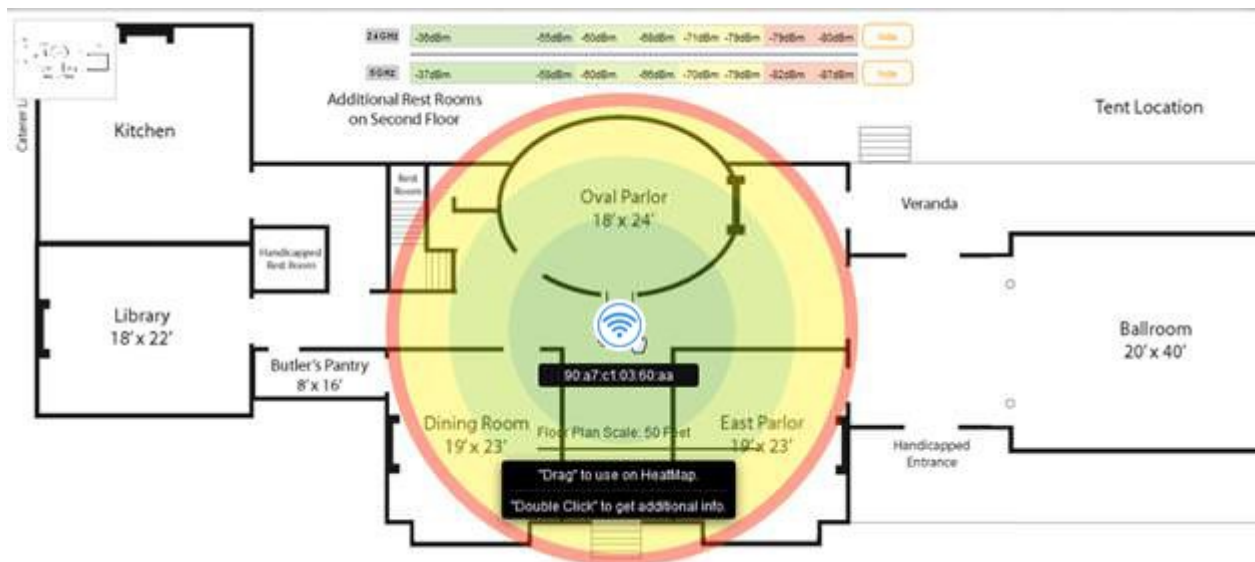
- The scale is now set.



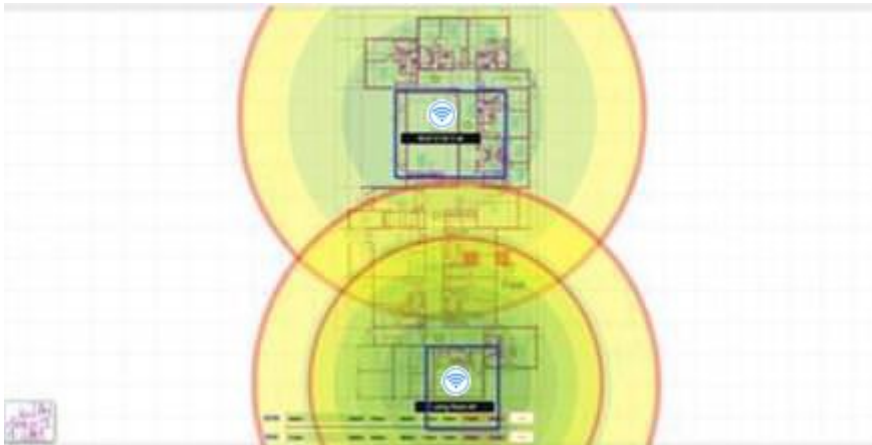
12. With the scale set, you can now close the menu on the right-hand side.



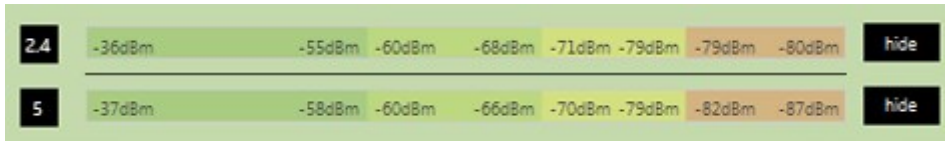
13. Now, we can begin adding access points. Simply drag an access point to the floor plan to view the coverage. You can continue adding access points to the map.



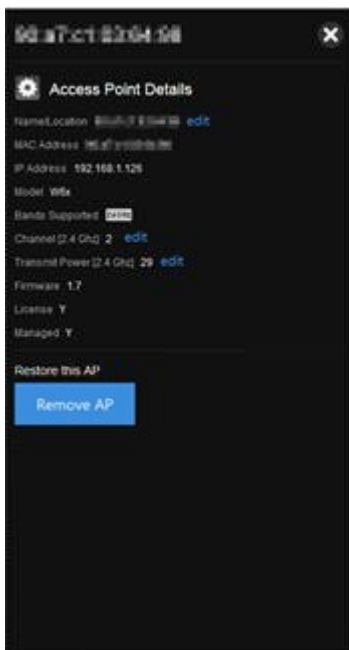
- Each access point has a colored circle around it. Color changes indicate a change in signal strength. The further an area is from an access point, the weaker the signal.



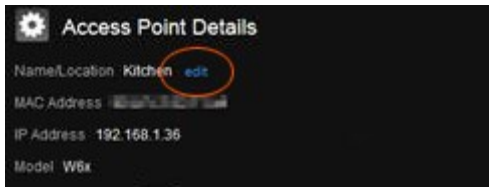
- To remove an access point, double-click it and then click **Remove AP**.
- When placing an access point on a floor plan, you will see two circles. The smaller circle represents the 5 GHz range and the wider circle represents the 2.4 GHz range. You can hide either band from the heat map by clicking **Hide** on the band you wish to remove.



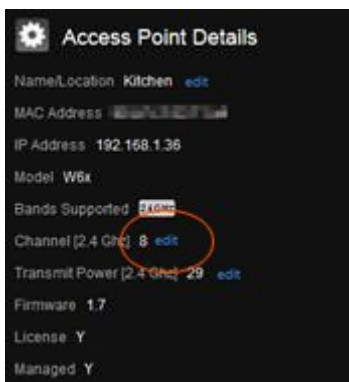
- You can double-click on any of the access points on the heat map to view its additional details.



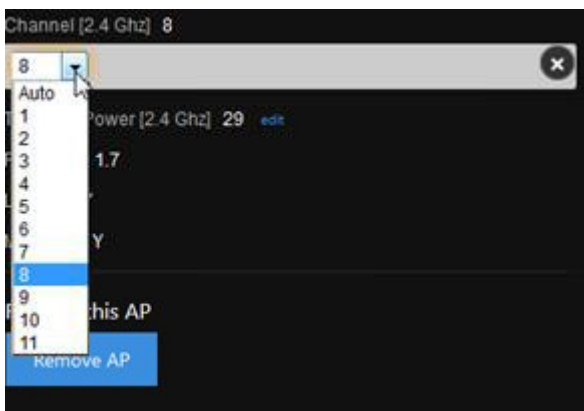
18. From the **Additional Point Details** menu you can change the **Name/Location**, **Channel**, and **Transmit Power** of your individual access points.
19. To change the Name/Location, click on **Edit**.



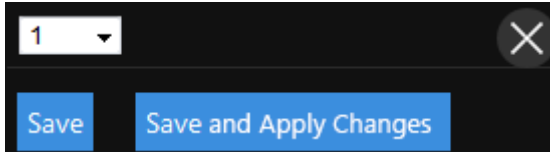
20. The name of an access point is its MAC address by default. To enter a new name, simply click on the textbox and begin typing. Click **Save** once finished.
21. To change the channel of the WAP, click **Edit**.



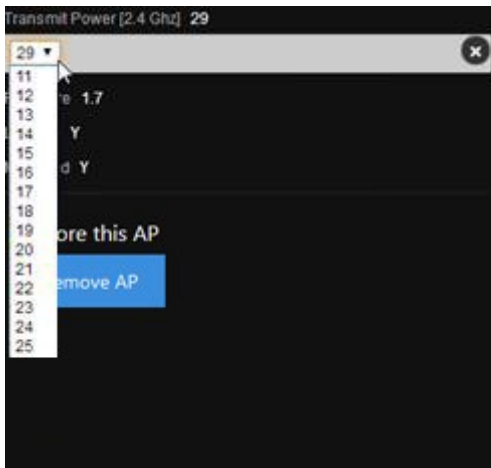
22. Select the channel of the access point. To leave the access point on auto channel, select **Auto**.



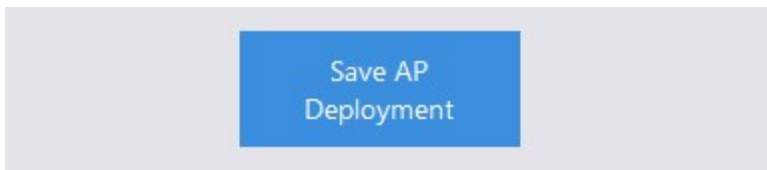
23. If you wish to continue making changes to your heat map, click **Save**. This will save your changes but not apply them—that way, you can finish the configuration of your heat map. If you want to apply the changes to the Global Configuration, click **Save and Apply Changes**.



24. Please note that this will cause your access points to update. During that time, the heat map will not be accessible. It is best to finish the configurations on all of your access points before you perform an update.
25. To change the transmit power, click **Edit**.
26. Select the power output you would like to use for the access point. It is set at its maximum output by default.



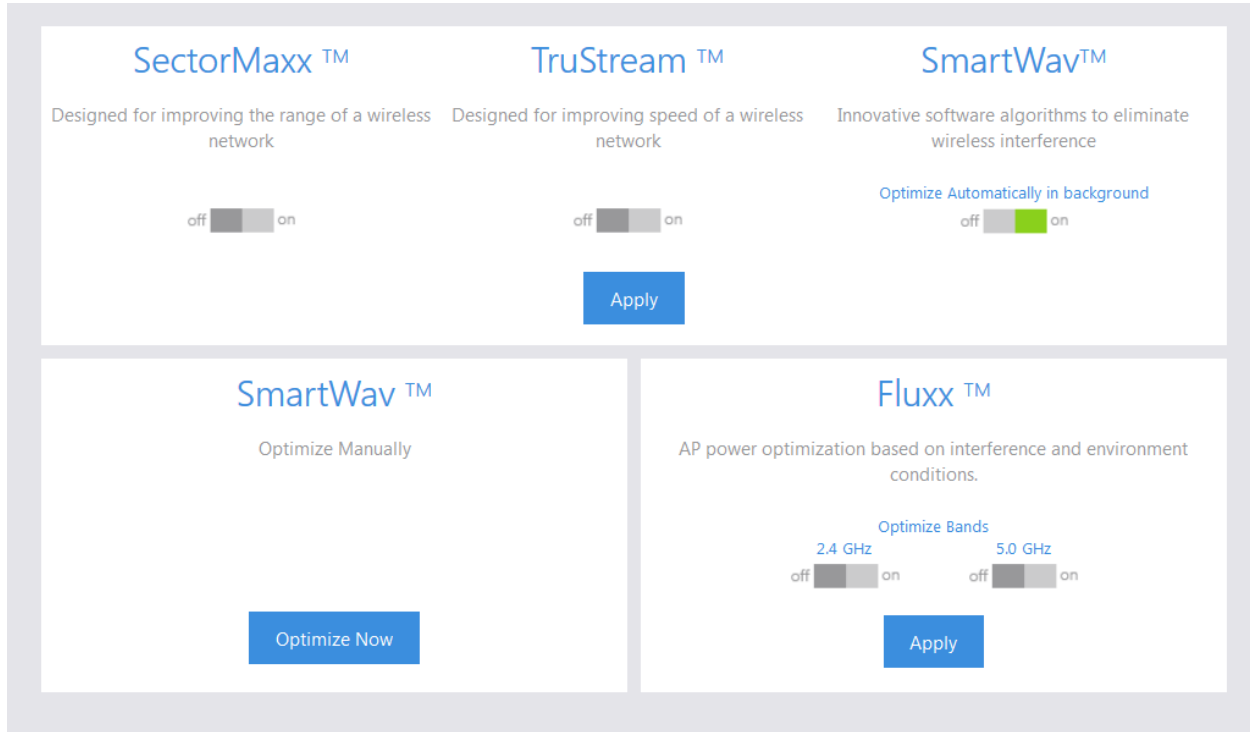
27. Click **Save AP Deployment** once you are finished with your floor plan.



Wireless Optimization

The C36 runs some sophisticated intelligence and algorithms to determine the best optimal settings for your network. This can be done manually or automatically in the background, depending on your preference. To optimize your wireless network, find **Dealer Tools** and click **Wireless Optimization**. 4 different optimizations can be used on the C36:

SectorMaxx, TruStream, SmartWav and Fluxx.



SmartWav™ technology works in the background to detect any interference from devices on the network that are not controlled by the C36. It even goes beyond your own network to look at neighboring networks with access points or devices that interfere with your network. Since you do not have any control over neighboring networks and often even cannot change device settings within your own network, the C36 implements complex calculations to figure out the best optimal changes for your wireless network. The C36 will then use these results and apply the optimization and required settings. SmartWav™ runs automatically in the background and gathers information about your network if you enable **Optimize Automatically in Background** as shown above.

This information will be analyzed and the controller will apply these changes at a scheduled default time of every Sunday at 2:00 am. Please note that this scheduled time may be changed by our support personnel only and you can call us at (650) 385-8703 to do so. If you would like to run the optimization manually, click **Optimize**. This will apply the optimized settings to your controller and access points instantly.

Manual optimization can also be run after applying the global configuration to your access points. Once the global configuration is applied to your access points, you will receive a pop up message that says the network has been configured. You will then have the option to run the optimization shown in the figure above.

SectorMaxx™: In installations where you do not have enough wireless coverage would rather have more coverage than bandwidth, you can enable SectorMaxx to maximize your wireless range.

TruStream™: TruStream does the inverse of SectorMaxx. If you require bandwidth and have enough coverage, you can enable TruStream to maximize your bandwidth.



Note: Enabling both SectorMaxx and TruStream will produce results based on your environment. You may get better coverage at certain times during the day and more bandwidth at other times. This setting is only recommended for low-interference environments.


Fluxx™: Fluxx helps reduce the power on APs based on interference. Fluxx will detect whether or not your APs are interfering with one another and adjust power levels accordingly.


Contact Us


This section includes our technical support phone number and email address. You can also fill out the support form and our technical support department will receive and respond to you ASAP.

Our support team is available

 Monday - Friday
 6:00am - 6:00pm PST.

Phone Support
 (650) 385-8703

Email Support
 support@pakedge.com

 Form

You can also fill out the form below and we will contact you as soon as we get your message

Customer Name:

Dealer Name:

Email Address:

Subject:

Description:

Limited Warranty

Model C36

Congratulations on your purchase of a Pakedge Device & Software product! Pakedge designs and manufactures the finest home networking products. With proper installation, setup, and care, you should enjoy many years of unparalleled performance. Please read this consumer protection plan carefully and retain it with your other important documents.

This is a LIMITED WARRANTY as defined by the U.S. Consumer Product Warranty and Federal Trade Commission Improvement Act.

What Is Covered Under the Terms of This Warranty?

SERVICE LABOR: Pakedge will pay for service labor by an approved Pakedge service center when needed as a result of manufacturing defect for a period **of three (3) years** from the effective date of delivery to the end user.

PARTS: Pakedge will provide new or rebuilt replacement parts for parts that fail due to defects in materials or workmanship for a period of **three (3) years** from the effective date of delivery to the end user. Such replacement parts are then subsequently warranted for the remaining portion (if any) of the original warranty period.

What Is Not Covered Under the Terms of This Warranty?

This warranty only covers failure due to defects in materials and workmanship that occur during normal use and does not cover normal maintenance. This warranty does not cover any appearance item; any damage to living structure; failure resulting from accident (for example: flood, electrical shorts, insulation); misuse, abuse, neglect, mishandling, misapplication, faulty or improper installation or setup adjustments; improper maintenance, alteration, improper use of any input signal and/or power, damage due to lightning or power line surges, spikes and brownouts; damage that occurs during shipping or transit; or damage that is attributed to acts of God.

The foregoing limited warranty is Pakedge's sole warranty and is applicable only to products sold as new by Authorized Dealers. The remedies provided herein are in lieu of a) any and all other remedies and warranties, whether expressed, implied or statutory, including but not limited to, any implied warranty of merchantability, fitness for a particular purpose or non-infringement, and b) any and all obligations and liabilities of Pakedge for damages including but not limited to incidental, consequential or special damages, or any financial loss, lost profits or expense, or loss of network connection arising out of or in connection with the purchase, use or performance of the Product, even if Pakedge has been advised of the possibility of such damages.

CAUTION: DAMAGE RESULTING DIRECTLY OR INDIRECTLY FROM IMPROPER INSTALLATION OR SETUP IS SPECIFICALLY EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. IT IS IMPERATIVE THAT INSTALLTION AND SETUP WORK BE PERFORMED ONLY BY AN AUTHORIZED PAKEDGE DEALER TO PROTECT YOUR RIGHTS UNDER THIS WARRANTY. THIS WILL ALSO ENSURE THAT YOU ENJOY THE FINE PERFORMANCE YOUR PAKEDGE PRODUCT IS CAPABLE OF PROVIDING.

Rights, Limits, and Exclusions

Pakedge limits its obligation under any implied warranties under state laws to a period not to exceed the warranty period. There are no express warranties. Pakedge also excludes any obligation on its part for incidental or consequential damages related to the failure of this product to function properly. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages. In this case, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Effective Warranty Date

This warranty begins on the effective date of delivery to the end user. For your convenience, keep the original bill of sale as evidence of the purchase date from your authorized dealer.


Important- Warranty Registration


Please register your product at www.pakedge.com. It is imperative that Pakedge knows how to reach you promptly if we should discover a safety problem or product update for which you must be notified. In addition, you may be eligible for discounts on future upgrades as new networking standards come about.

To Obtain Service, Contact Your Pakedge Dealer.

Repairs made under the terms of the Limited Warranty covering your Pakedge product will be performed by an Authorized Pakedge Service Center. These arrangements must be made through the selling Pakedge Dealer. If this is not possible, contact Pakedge directly for further instructions. Prior to returning a defective Product directly to Pakedge, you must obtain a Return Material Authorization number and shipping instructions. Return shipping costs will be the responsibility of the owner.

pakedgedevice&software inc

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Huntington Beach, CA 92647

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