![mountainbox logo]

Wireless where
you need it.

Indoor and outdoor modular installation
options that fit any environment.

Ceiling Enclosure (shown
here) is sold seperately.

MountainBox Wi-iDiG Wireless Solution

1. Overview

1.1.   Say goodbye to on-site controllers.

What used to live in a dedicated server on-site can now be managed through the cloud and your Internet browser. MountainBox Wi-iDiG utilises CloudTrax. CloudTrax is powerful enough to meet the demands of IT professionals, while easy enough to be deployed by someone with little to no network experience. MountainBox Wi-iDiG proves how easy robust network management can be. And the price? It's free: every piece of MountainBox Wi-iDiG hardware comes with a perpetual CloudTrax license.

1.2.   Two SSIDs. Endless possibilities.

The Cloud Controller allows you to broadcast two unique networks, one "public" and one "private." Your public network can be customised with powerful captive portal features, while your private network can work seamlessly as an extension of your LAN. Each network can independently be renamed, left visible or hidden, and left open or password-protected with

WPA/WPA2 encryption. Easily customise each to meet your needs.

### 1.3.	Your network. Your brand.

With a built-in WYSIWYG splash page editor, you control the user experience from the moment a guest, resident or customer connects to your network.

Design a page from scratch to match your website, or get started with one of several beautiful templates that automatically scale to fit laptops, tablets and smartphones. Once connected, users can be redirected to any page you choose.

### 1.4.	End network abuse.

The cloud controller lets you set upload and download caps on each user so there is enough bandwidth available for everyone.

With eyes on each user's traffic, you can manually block the individual network abusers you notice behaving badly.

### 1.5.	Monetize your network. Keep 100%.

With the built-in CloudTrax captive portal, you can authenticate users, set pay-for-use options and collect secure credit card payments through PayPal, generate vouchers in real-time on the fly with Lobby Assistant, or connect to a third-party advertising platform. It's incredibly easy to set up. And unlike other cloud-managed network providers, we never take a cut.*

*Transaction fees charged by PayPal apply.

### 1.6.	Safe and secure.

MountainBox Wi-iDiG is perfect for environments where security is paramount: no user traffic is sent to our cloud servers and a built-in firewall prevents users on the public network from seeing each other or your wired network by default.

For more security, protect one or both SSIDs with a WPA key, and hide either from broadcasting.

1.7.   Proven reliability.

The cloud controller lives in Amazon's secure and reliable EC2 data centres. With global distribution and over 99.9% uptime, Amazon keeps the cloud controller running when you need it.

Even if your devices lose connection with the cloud controller, your networks aren't affected. That's because no network traffic actually passes through the cloud controller. When a connection is established again, each device will continue checking in to the server to report usage and download any new settings.

1.8.   Automated outage alerts.

Don't have time to check the network status every day? Don't worry. If any access point goes down and doesn't come back up within an hour, CloudTrax will automatically email you (and anyone else you designate) about it.

Outage alerts are easy to turn on and off, and always keep you in-the-know when it comes to your wireless network.

1.9.   Monitor on the go.

CloudTrax is the only cloud-based network controller with free iOS and Android apps, so you can keep an eye on your networks while on the go.

You'll get up to the minute reports on user traffic, node status and mesh speed, all from your smart phone or tablet. For more control, simply log in to CloudTrax from any browser or supported smart device.*

*Firefox is required for some editing functions.

2. Cloud Management & Reporting

2.1. Bandwidth Usage Report

This report shows the bandwidth usage throughout the day, week and month for the network.

Total bandwidth is measured in kilobits per second of data uploaded and downloaded. If you see the graph topping your modem's speed on a regular basis, we recommend upgrading your Internet service to meet that demand. If you don't upgrade, some members of your network will not be able to connect reliably. We can advise you what Internet service provider and package would work best for you, based on your needs and what is available in your area.

How to read this report: Upload is shown in red and download traffic is shown in blue. Yellow shows the total active users at a particular moment in time.
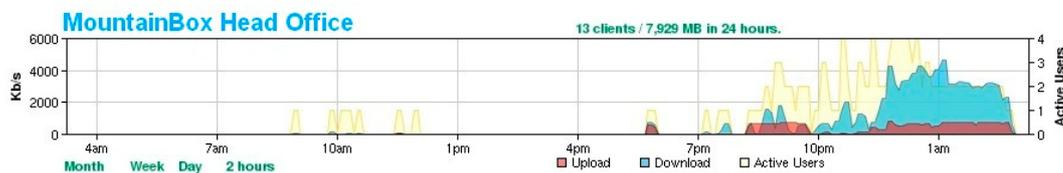
2.2. Node List Report

This report lists all of the 'nodes'--or wireless repeaters--in your network and shows how each one is doing. Highlights of this report include:

- **Outages (last 24 hours):** This maps the "gateway metric" for the last 24 hours. "Now" is always on the right side of the graph, and each vertical line in the graph represents 10 minutes and shows the metric that the node had at that time. These are color coded by quality where "green" is good, yellow is marginal and red is poor. Grey indicates that it was not working at all at that time. Ideally, this graph will be all or nearly all green. If you see a lot of variability, it is likely due to a low signal (eg, the node is too far from its neighbours). The Network Diagram Report (see below) can help you spot these problem areas.

- **Download Speed Last/Average:** This column shows your current ("last") and average download speeds to each particular node. To measure the total network speed capabilities, simply add up all of the node speeds.

- **Status:** The left column is a trouble indicator: Red indicates a node with a serious problem, yellow a node with an intermittent or marginal issue. Grey with a white exclamation mark indicates that it is not working or it is inactive. The four nodes marked "Guest Bridge" are inactive until required by guests who do not have a wireless card.

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You can sort the list by clicking on any column.

Status	name / notes	24 hr users	24 hr usage MB down/up	Last Checkin	gateway	hops	Ping Latency	Mesh Speed Last/Average	Outages (Last 24 hours)
	Room 212	1	205.4 / 6.2	02 Mins	Gateway 2nd Floor Above Lobby 5.xx.xx.7	1	2	9.3 Mbps / 8.6 Mbps	9am 3pm 9pm
	Room 209	0	0.0 / 0.0	04 Mins	Gateway 2nd Floor Above Lobby 5.xx.xx.7	1	2	8.9 Mbps / 8.9 Mbps	9am 3pm 9pm
	Room 220	1	0.8 / 0.1	00 Mins	Gateway Outside 222/224 5.xx.xx.139	1	3	9.4 Mbps / 9.6 Mbps	9am 3pm 9pm
	Room 215	0	0.0 / 0.0	03 Mins	Gateway Outside 222/224 5.xx.xx.139	1	3	9.6 Mbps / 9.0 Mbps	9am 3pm 9pm
	Gateway Outside 222/224	0	0.0 / 0.0	02 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm
	POE Gateway Outside 115/116	0	0.0 / 0.0	01 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm
	Room 201	1	71.7 / 2.5	03 Mins	POE Gateway Outside 105/106 5.xx.xx.31	1	2	9.1 Mbps / 8.9 Mbps	9am 3pm 9pm
	Gateway 2nd Floor Above Lobby	0	0.0 / 0.0	03 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm
	Room 225	3	4.0 / 1.8	03 Mins	POE Gateway Outside 115/116 5.xx.xx.143	1	3	9.9 Mbps / 7.1 Mbps	9am 3pm 9pm
	Room 217	0	0.0 / 0.0	01 Mins	Gateway Outside 222/224 5.xx.xx.139	1	2	7.8 Mbps / 7.6 Mbps	9am 3pm 9pm
	POE Gateway Outside 105/106	2	2497.5 / 52.3	01 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm
	Gateway Outside 203/204	2	2222.3 / 892.4	02 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm
	Room 208	0	0.0 / 0.0	02 Mins	Gateway Outside 203/204 5.xx.xx.61	1	2	7.9 Mbps / 6.4 Mbps	9am 3pm 9pm
	Master Gateway in Network Room	0	0.0 / 0.0	00 Mins	self 192.168.0.1	0	n/a	n/a / n/a	9am 3pm 9pm

Key: Gray: Node is Down, **Red:** Outage, **Yellow:** Up, but high hop count or latency, **Green:** Good.

2.3.   Google Map Report

Hover your mouse over the different green boxes and you'll see the name of the node, the number of users and the green route it is taking to get to the Gateway mesh node. Click on any green node and you'll see a pop-up that shows all the details for that node. A signal of 17 or more on the "Neighbours" tab in the pop-up box is a healthy connection. Ideally, two or more neighbours will have a signal reading of at least 17 so that you will have built in redundancy if one of them should fail. The mesh node network will reroute wireless traffic to the good one and keep all users online even though one of the nodes failed.

Note: Click the "Satellite" view to see a physical representation of each wireless node.

Key: Gray: Node is Down, **Red:** Outage last hour, **Yellow:** Up now, but high outage last day or high hop count or latency, **Green:** Good.

2.4. Network Diagram

The Network Diagram draws node relationships; essentially the connections and connection strength between nodes. Nodes are shown as ellipses (gateways are marked with a (g) after the name). The nodes are color-coded by their gateway connection quality, using the same scale as used for the 24-hour network quality graph above (green, yellow, red). If a node isn't checking in at all, it will be gray. Other features of this page are:

- Extra circles around the ellipses indicate users. For example, a node with 10 users will have 10 circles around it.

- Colour coded lines are drawn between the nodes that represent the signal quality between the nodes. Each line should have an arrow at each end which means that both nodes can see each other. Near the arrowhead the actual node to node quality is displayed as a number (0-55) where 55 is perfect. **A number of 17 or greater is a healthy connection.** Ideally each node will have at least 1 and preferably 2 green lines with a reading of 17 or greater on each end connecting them to each other. A reading of 25 or higher probably indicates that the repeaters are closer than they need to be - you can spread them out a bit more and see how that affects their signal strength readings. This assures that each node has both a strong connection and a backup should something to that link fail.

- Hover the cursor over any node to see the node IP address and the number of hops to the gateway.
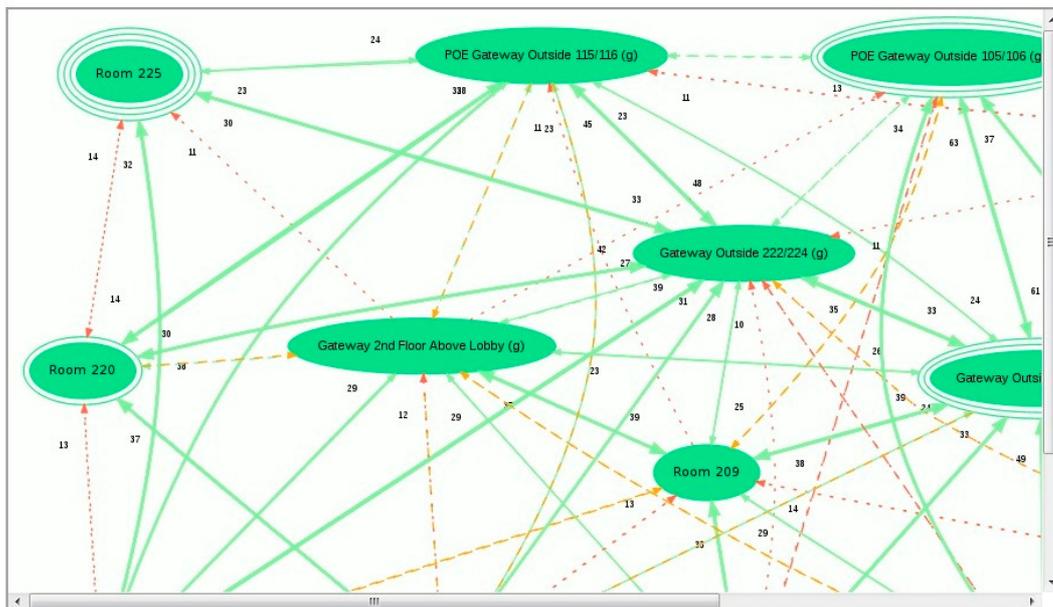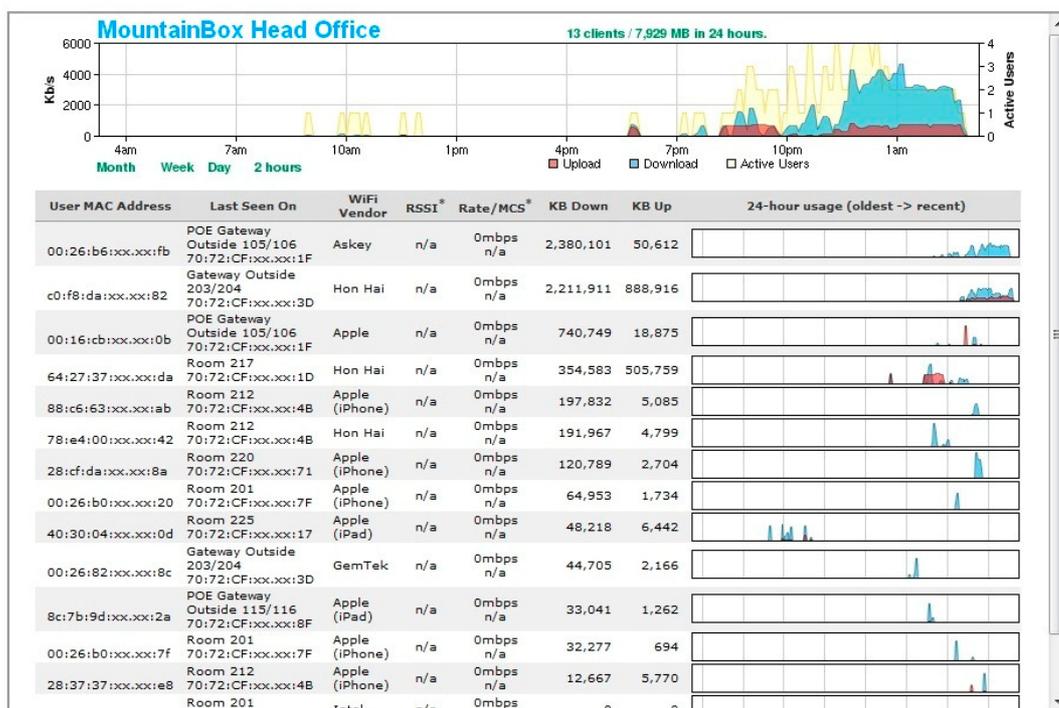

2.5. 24-hour Usage and User Report

This shows the bandwidth usage for each user throughout the day for the network. Total bandwidth is measured in kilobits per second of data uploaded and downloaded. If you see the graph topping your modem's speed on a regular basis, we recommend upgrading your Internet

service to meet that demand. If you don't upgrade, some members of your network will not be able to connect reliably. We can advise you what Internet service provider and package would work best for you, based on your needs and what is available in your area.

Sort the "KB Down" column to show your heaviest users. Using this information, we can determine who bandwidth abusers are (those downloading illegal movies and TV shows) and block them from further use. The Dashboard allows the Network Administrator to block any user temporarily--until he has called the support team to get reconnected--at which point we warn the guest and explain your location's usage policies.

Note: an Administrator can see the computer names for each user that we don't display in the public page shown here.

MountainBox Head Office   13 clients / 7,929 MB in 24 hours.

User MAC Address	Last Seen On	WiFi Vendor	RSSI*	Rate/MCS*	KB Down	KB Up	24-hour usage (oldest -> recent)
00:26:b6:xx.xx:fb	POE Gateway Outside 105/106 70:72:CF:xx.xx:1F	Askey	n/a	0mbps n/a	2,380,101	50,612	
c0:f8:da:xx.xx:82	Gateway Outside 203/204 70:72:CF:xx.xx:3D	Hon Hai	n/a	0mbps n/a	2,211,911	888,916	
00:16:cb:xx.xx:0b	POE Gateway Outside 105/106 70:72:CF:xx.xx:1F	Apple	n/a	0mbps n/a	740,749	18,875	
64:27:37:xx.xx:da	Room 217 70:72:CF:xx.xx:1D	Hon Hai	n/a	0mbps n/a	354,583	505,759	
88:c6:63:xx.xx:ab	Room 212 70:72:CF:xx.xx:4B	Apple (iPhone)	n/a	0mbps n/a	197,832	5,085	
78:e4:00:xx.xx:42	Room 212 70:72:CF:xx.xx:4B	Hon Hai	n/a	0mbps n/a	191,967	4,799	
28:cf:da:xx.xx:8a	Room 220 70:72:CF:xx.xx:71	Apple (iPhone)	n/a	0mbps n/a	120,789	2,704	
00:26:b0:xx.xx:20	Room 201 70:72:CF:xx.xx:7F	Apple (iPhone)	n/a	0mbps n/a	64,953	1,734	
40:30:04:xx.xx:0d	Room 225 70:72:CF:xx.xx:17	Apple (iPad)	n/a	0mbps n/a	48,218	6,442	
00:26:82:xx.xx:8c	Gateway Outside 203/204 70:72:CF:xx.xx:3D	GemTek	n/a	0mbps n/a	44,705	2,166	
8c:7b:9d:xx.xx:2a	POE Gateway Outside 115/116 70:72:CF:xx.xx:8F	Apple (iPad)	n/a	0mbps n/a	33,041	1,262	
00:26:b0:xx.xx:7f	Room 201 70:72:CF:xx.xx:7F	Apple (iPhone)	n/a	0mbps n/a	32,277	694	
28:37:37:xx.xx:e8	Room 212 70:72:CF:xx.xx:4B	Apple (iPhone)	n/a	0mbps n/a	12,667	5,770	
	Room 201	Intel	n/a	0mbps	0	0	

2.6.   Apple iPhone and Android Support

All the above features and functionality is also supported on Apple iPhone and Android devices.

Available on the App Store   android