

# Connectivity

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**con-nec-tiv-i-ty** *noun*:

the quality, state, or capability of being connective or connected <connectivity of a surface>;  
*especially* : the ability to connect to or communicate with another computer or computer system

Version 1.25.2017

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# Importance of Connectivity

## The CTM Way

**We care about the success of our clients—our goal is to deliver value and drive results.**

*To achieve valuable (and trackable) usage reports and deliver a high return on each client's investment, the most up-to-date client content should always be appearing on ExploreBoards located in high profile, heavy traffic locations with a stable and reliable Internet connection.*

**We recognize that doing things the right way is the only way—and is always rewarding.**

*We understand that the investment of our time and attention to a confirming a stable Internet connection ensures a rewarding experience for clients, visitors and host partners.*

*Setting the tone with a successful ExploreBoard installation provides the host partner with confidence in our products and services. Clear communication with the right employees at the host location is essential.*

**We care about the satisfaction of our location partners—they are integral to our success and deserve exceptional service.**

*ExploreBoards should always be perceived by our location partners as a valuable, useful and necessary resource to enhance their guest /customer experience.*

**We commit to delivering a superior experience to our clients and partners—a pursuit of excellence in our daily interactions.**

*Our ExploreBoard experience should be the “best in class” visitor information solution on the market today.*

**We embrace open and transparent communication and feedback.**

*We rely on constant feedback from you and our host partners to understand how our screens are performing in the field.*

**We recognize that success comes from a relentless passion for creativity, innovation and improvement—empowering us to drive positive business results every day.**

*Your feedback and constant communication helps us continually improve our equipment, products and services.*

## Who Owns The Host Partner Relationship?

In most markets, Sales Managers secure the EB locations and have the agreements signed, at which time the connection type (hardline, W-Fi or 3G/4G) must be confirmed with the host partner.

Operations Managers will then submit the EB order form request and attach all signed host location agreements online at: [www.ettractions.com/eborder](http://www.ettractions.com/eborder)

All equipment orders require both an IT contact and a marketing contact. Sales works with the host location's marketing contact to collect all profile materials, logos and to communicate performance stats.

Once the location order has been approved by Ettractions, a CTM employee who is certified to perform a connection test will visit the location and run the diagnostic test.

For 3G/4G connections, Operations will need to work with Ettractions to secure a data plan and order necessary equipment.

**The Operations Manager ultimately owns the connection process.**

If the initial test fails, the Ettractions team can work with the Operations Manager and the host IT contact to clarify and resolve technical issues. If connectivity issues persist, Operations Managers may require some additional assistance from the Sales Manager to open dialogue with the host partner.

**Ettractions will not order equipment until the connectivity test has passed.**

Ettractions can only provide support to a host location when we have open communication with the local IT contact.

# How ExploreBoards Connect to the Internet

## How do ExploreBoards Work?

ExploreBoards are not oversized computer monitors used for web searches and they do not “stream” live content via the Internet.

Instead, media files (like photos and videos) are preloaded to the ExploreBoard media players and tablets, so the visitor using the touch screen does not have to wait for a page to connect to the Internet and then load information with every touch.

Ettractions sends a daily content file (with all the copy, profile and campaign updates) every night. When connected, ExploreBoards automatically reboot at 6 a.m. EST and upload the latest files.

## Media Players:

The digital media player (computer box) is located behind your Ettractions ExploreBoard.

The media player downloads secure content from the Internet via a data connection on an existing network.

The players and tablets 'call out' to a central server via a secure Internet connection, download content, and display content on the screen.

## Security:

When the Ettractions ExploreBoard player is turned on, it 'calls out' to the server and inquires about any new content that it should download using the Internet connection.

The player/tablet always 'pulls' information from the external server. No external communication will 'push' or instigate communication. This ensures the host location's system and networks are never put at risk.

## Bandwidth:

The minimum external Internet bandwidth recommended is 512K (download).

Since the player is always connected to the server, it periodically sends status information about its health. In some instances, the player can be set to only use a certain amount of bandwidth if required.

## A Stable Internet Connection is Required For the Following Features:



- Google Maps & Directions
- “Send to Me” by SMS (Text Messages)
- “Send to Me” by e-mail
- Data Collection of Profile Performance
- Sync of latest profile files at 6 a.m. EST

Download a PDF for your host location's IT department detailing security & bandwidth requirements here:

[www.ettractions.com/page/resources](http://www.ettractions.com/page/resources)

# ExploreBoard Connectivity Options

## 1. Hardline Connection

Hardline Connections are the most stable of all options because we are constantly connected to the Internet using an Ethernet cable plugged into an Ethernet port (looks a wide telephone jack.)

## 2. Wi-Fi Network Connection

Wi-Fi connections take the host location's original Internet source (decoded through a modem) through a router which shares the Internet connection wirelessly to multiple devices.

Wi-Fi networks are often secure and password protected, or involve some type of online login screen for access.

Wireless signal strengths can also vary depending on the proximity of the host location's router to the ExploreBoard.

## 3. 3G/4G Network Connection

Instead of connecting through a host location's Internet source, 3G/4G connections access the Internet through a cellular provider's network (like T-Mobile or AT&T.) A 3G stick will need to have an activated SIM card and paid monthly cellular plan (just like your smartphone does.)

The 3G "stick" is a USB device inserted into a router's USB port in order to access the provider's cell signal.

Just like with your smartphone, cell service signals can vary in strength and stability depending on location.



**HARDLINE (WIRED) CONNECTIONS:**  
These will require an active Ethernet port dedicated to our ExploreBoard/tablet.



**WI-FI CONNECTIONS:**  
The Internet signal travels through routers, and signal strength can vary based on distance from the original source.



**3G/4G CONNECTIONS:**  
The Internet is accessed through a cellular provider's network through a stick inserted into the router's USB port.

## Modems:

Modems bring the information in from the Internet. A modem encodes and decodes the data so it can pass between an ISP (Internet Service Provider) and a location's computer network.

## Routers:

Routers share an Internet connection with multiple devices. Routers direct the information collected by the modem and distributes (routes) it to multiple devices. Most routers have a specific Ethernet port for a cable or DSL modem.

## MAC Address:

Also known as a "physical address," a MAC address is the unique hardware number assigned by the manufacturer and printed on a sticker/label on our tablets, media players and routers.

# Connectivity Preparedness Checklist

## Confirm Electricity/Power

ExploreBoards/tablets will require power. When scouting a potential location, be sure that a functioning electrical outlet is available.

If not, work with the host partner on a different location with power or determine how electricity may be brought to the desired location (and at what cost to the host location.)

## Confirm the Connection Type

1. A **hardline** will require an active Ethernet Port accessible to the desired EB location. If a hardline is not available, work with the host partner on a different location or determine how a hardline may be dropped at the desired location (and at what cost to the host location.)
2. **Wi-Fi** will require access to a strong wireless network signal at the desired EB location.
3. **3G/4G** requires a paid data plan and access to a strong cell signal at the desired EB location.

## Confirm Network Security

If the network we will be joining has security levels including a splash page, a Firewall, VPN (Virtual Private Network,) etc. our ExploreBoard devices will need to be cleared to access their Internet as a trusted partner.

## Confirm IT Contact at Host Location

The host location may have a local IT employee, an IT department OR they may outsource this work to a third party vendor. We will need to know the designated IT contact up-front in order to communicate regarding connectivity and any future network issues.

## Ops Manager Submits ExploreBoard Order Request Form Online

To place an online order for a new ExploreBoard location, both connectivity type and the IT contact will be required at [www.ettractions.com/eborder](http://www.ettractions.com/eborder)

## Importance of Ports:

Think of ports as the highway lanes where specific information travels back/forth.

For the player or tablet to access our servers, the host partner will need to allow our devices access to all these ports:

Port 1100 - Initial Connection

Port 1101 - Discovery Connection

Port 8093 - Main Connection

Port 1101 - Backup Discovery

Port 8093 - Backup Connection

Port 21\* - FTP Content Download

\* This port needs to be cleared for our video and photo files to be uploaded to ExploreBoards.

## Clearing IPs:

The IT contact will need to approve the following IP addresses so information can pass freely from our servers through the ports.

Port 1100 – Initial Connection	<b>64.34.141.187</b>
Port 1101 – Discovery Connection	<b>64.34.141.188</b>
Port 8093 – Main Connection	<b>64.34.141.188</b>
Port 1101 – Backup Discovery	<b>64.34.141.189</b>
Port 8093 – Backup Connection	<b>64.34.141.189</b>
Port 21 – FTP Content Download	<b>64.34.141.184</b>

## Clearing MAC Addresses:

The IT contact may need to approve the MAC Addresses associated with our devices.

Download a PDF for these host location (IT department) tech/port requirements here : [www.ettractions.com/page/resources](http://www.ettractions.com/page/resources)

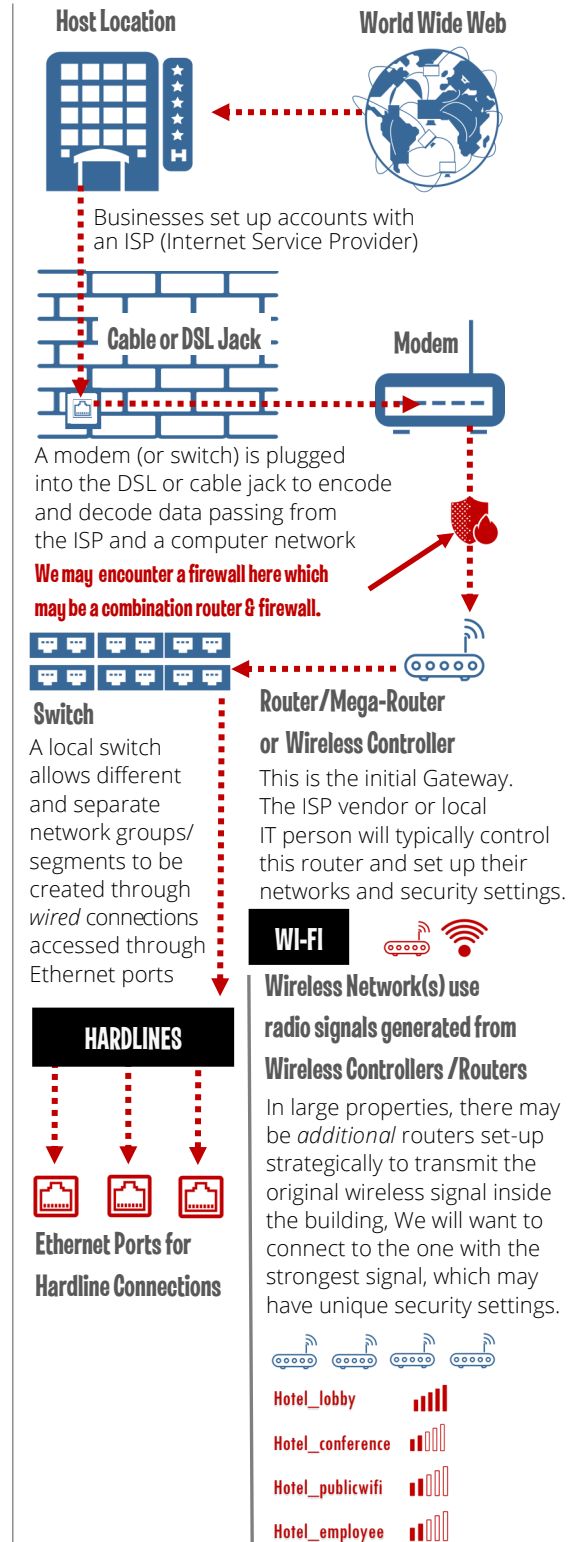
# Connecting to Secure Networks:

## Working with Secure Networks:

- Whoever is paying for the Internet service is in control of their own network.
- We cannot join their secure network as a guest through a splash page every time we need to get online. You will essentially be requesting to join their business network as a trusted partner in order to secure a reliable Internet connection.
- Prior to the installation is the time to establish a good relationship with their IT contact and have a clear understanding of everyone's expectations.
- To secure a reliable Internet connection, our ExploreBoard player or tablet will need to be added as an approved device on their network. This may involve clearing a port for our use or having our MAC addresses cleared through their routers and switches.
- Additional and ongoing communication with the host's IT department contact will be necessary whenever changes are made to their Internet provider, when there are network upgrades or if their passwords or security settings change.

## Reality Check:

- It is in everyone's best interest to have a stable, working Internet connection.
- Host partners do not want a large piece of malfunctioning equipment in their lobby with outdated information.
- Clients do not want to visit an ExploreBoard in their network to find that their profile is missing or that our many interactive features do not work.
- Just like your own home or business Internet or cable connections, expect to experience an interruption in service due to hardware or software issues at some point.
- You will need to have a good relationship with your host partner's IT contact when issues come up to quickly resolve them.





# Connectivity Testing

## What is a Connectivity Test?

- Without a stable Internet connection, we cannot upload files to an ExploreBoard, access Google maps for directions, send e-mails or text messages, or pull usage/engagement reports for our clients.

Before any equipment is even ordered, a diagnostic test needs to be run to mirror how our ExploreBoards would connect and function properly in the EB's intended location.

- The Engage Connectivity Test needs to be run and pass to ensure that the Internet connection provided by the host partner will be adequate for ExploreBoards to function.
- This diagnostic test confirms that all necessary ports are open and cleared so our media players can successfully connect to our Engage server's IP addresses through the Internet. If a splash page or password are required to connect, the test will fail and additional steps are necessary.
- When a test fails, we need to determine what is blocking the connection to the Engage server. This could be a closed port or the Engage IP address we are trying to connect may be blocked by a firewall, router or switch.

**Download the Engage Connectivity Test Tool file to your laptop here:**  
[www.ettractions.com/page/resources](http://www.ettractions.com/page/resources)

## Engage Connectivity Test

You will be running a file from a laptop connected to the Internet to generate a pass or fail message accompanied by a detailed text file with notes and helpful information on what caused a failure.



## Sample "Failed" Connectivity Test

Date: 14/07/2016

Start time: 11:39:25

Testing DNS, looking up enqii.net

\*\* DNS Lookup failed!

Trying to get public IP address

\*\* Public IP: unable to determine IP

Starting App Server port connectivity tests

\*\* Connection Failed for port 1100 on prd-app.prd.enqii.net!

\*\* Connection Failed for port 1101 on prd-app01.prd.enqii.net!

\*\* Connection Failed for port 1101 on prd-app02.prd.enqii.net!

\*\* Connection Failed for port 8093

\*\* App Server Connection Failed!

Starting IM Server port connectivity tests

\*\* Connection Failed for port 80 on im-web.prd.enqii.net!

\*\* Connection Failed for port 4123 on im-web.prd.enqii.net!

Starting FTP Server port connectivity tests

\*\* Connection Failed for port 21 on prd-con.prd.enqii.net!

Starting FTP download tests

\*\* FTP Download Failed!

\*\* FTPS Download Failed!

\*\* HTTP Download Failed!

\*\* HTTPS Download Failed!

Connectivity test Failed!

# Connectivity Testing

## Running the Connectivity Test

- To run a Connectivity Test, you will need laptop with an Ethernet port to simulate/mirror how our ExploreBoard Media Player or tablet would connect in this exact situation.
- Take the laptop to the location where the ExploreBoard is to be installed.
- If the host location says they have a wide open network, confirm that this is the case.
- With your laptop turned on, take note of any wireless Internet availability. *Before connecting the router or to the hardline, enable the W-Fi on your laptop and attempt to connect to their recommended network. If you can get online but you hit a splash page requiring login credentials, there is no need to proceed with the connectivity test. (The test will fail.)*
- If you are certain there is no splash page and can get online using the laptop by connecting to their recommended network, disable the Wi-Fi on your laptop to perform the Engage connectivity test using the equipment you plan to use.
- **Hardline Testing:** Once the laptop is connected to hardline port, run the Engage Connectivity Test file (that you have loaded on your laptop.)
- **Wi-Fi Testing:** Once the laptop is connected to the router, connect to their network using the router. When connected, run Connectivity Test.
- Run the file and a results page will provide you information with a Pass/Fail message. A text file will provide details regarding the cause of a "fail" message.
- Notify Ettractions when the Engage Connectivity Test passes, and your equipment will be ordered.
- If a test fails, work with the host partner to clear the necessary ports and addresses until the test passes. The test results will indicate the specific ports that did/did not clear.

## Engage Connectivity Test

You will be running a file from a laptop connected to the Internet to generate a pass or fail message accompanied by a detailed text file with notes and helpful information on what caused a failure.



Date: 14/07/2016

Start time: 11:39:25

\*\*\* EnGage Connectivity Test Tool, v1.6 (Windows) \*\*\*

Date: 14/07/2016

Start time: 11:03:41

Testing DNS, looking up enqii.net

\*\* DNS Query OK: 1.0 secs

Trying to get public IP address

\*\* Public IP: 173.166.12.25

Starting App Server port connectivity tests

\*\* Connection Success for port 1100 on prd-app.prd.enqii.net

\*\* Connection Success for port 1101 on prd-app01.prd.enqii.net

\*\* Connection Success for port 1101 on prd-app02.prd.enqii.net

\*\* Connection Success for port 8093 on prd-app01.prd.enqii.net

\*\* App Server Connection Success

Starting IM Server port connectivity tests

\*\* Connection Success for port 80 on im-web.prd.enqii.net

\*\* Connection Success for port 4123 on im-web.prd.enqii.net

Starting FTP Server port connectivity tests

\*\* Connection Success for port 21 on prd-con.prd.enqii.net

Starting FTP download tests

\*\* FTP Download Success

\*\* FTPS Download Success

\*\* HTTP Download Success

\*\* HTTPS Download Success

Connectivity test Passed

Finish time: 11:03:58



# Hardline Connections

## What is a Hardline (Wired) Connection?

- The host location will have an "Ethernet Port" which looks like a wide telephone jack. This port is the most stable of connections because you are constantly connected.
- One end of the "Ethernet Cable" (looks like a thicker telephone line) will be inserted into the host location's Ethernet Port and the other end of the cable into a router or directly to the media player or tablet.
- Be sure you are equipped with a long enough Ethernet cable prior to installation.

## Pros of Hardline Connections:

- Hardline (wired) connections are usually faster and more stable than any other connection option.
- Hardlines are usually easier to install and troubleshoot since there are fewer levels/pieces of equipment involved between the EB and the original Internet source.

## Cons of Hardline Connections:

- Whoever is paying for the Internet service is in control of their network. Additional and ongoing communication with their IT department contact will be necessary whenever changes are made to their Internet provider, when there are network upgrades or if their passwords or security settings change.
- Because the set-up is wired, there may be limitations to where the ExploreBoard can physically be installed within the building.

## Very Important:

- When testing for connectivity, always test the specific port that is intended to be used for the ExploreBoard. Just because you can see an Ethernet port on a wall does not necessarily mean that the port is activated.
- Make sure the Ethernet cable is not being pinched/crushed under the weight of the stand.



ETHERNET CABLE & ETHERNET PORT:  
Ethernet cables support a high speed Internet connection between players, routers and wall ports.

## Hardline Connectivity Checklist:

1. Download the Engage Connectivity Test file on the desktop of your laptop you are using to run the test.
2. Insert one end of an Ethernet cable into the laptop's Ethernet port
3. Insert the other end of the Ethernet cable into the exact ACTIVE Ethernet port dedicated for the ExploreBoard
4. Double click on the Engage Connectivity Test icon on the laptop to run the file.
5. Wait for a black window to appear with white text while the file is running and after a few minutes, the results page will generate along with a text file that details if the test passed or failed and why.
6. E-mail the results page (text file) to [ebsupport@ettractions.com](mailto:ebsupport@ettractions.com) along with any next steps.

## Caution Ahead!

Ideally, we are set up with a dedicated Ethernet cable and line.

If an EB/tablet is going to be installed at a concierge desk or host location where the same Ethernet cord is regularly unplugged and used with other devices like phones, printers, desktop computers, or other laptops and tablets, you may face many disruptions in service.

# Wi-Fi Connections

## What is Wi-Fi?

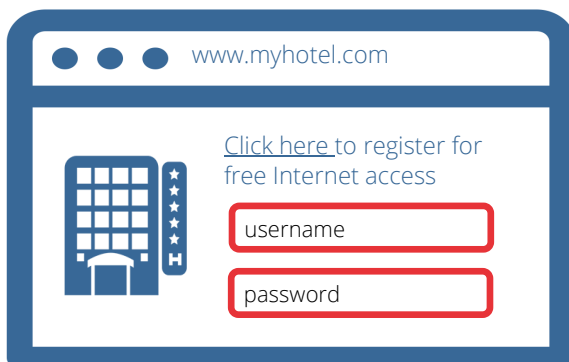
- Wi-Fi is an alternative to using actual network cables to connect several devices in a local network.
- A Wi-Fi network is almost always hosted by a router. Wi-Fi routers allow us to connect the media player to the host location's wireless network in order to access the Internet.

## Pros of Wi-Fi Connections:

- Wi-Fi may be a viable option if a hardline connection using cables is not available.
- With Wi-Fi, there are usually fewer limitations to where the ExploreBoard can physically be installed within the building.

## Cons of Wi-Fi Connections:

- Whoever is paying for the Internet service is in control of their own network. Additional and ongoing communication with their IT department contact will be necessary whenever changes are made to their Internet provider, when there are network upgrades or if their passwords or security settings change.
- Anyone who has worked on a Wi-Fi network knows that signal strength can impede speed and signals can drop during use.
- ExploreBoards are not live web browsers. If a host partner has a Wi-Fi network that directs a guest to a website in order to enter a password for Internet access, we **cannot** get online through this method. (There is no way to navigate to their landing page and then enter a password for Internet service.)



## Wi-Fi Connectivity Checklist:

1. Take a laptop with the wireless card turned **"on"**
2. Do a wireless sites survey to detect the Wi-Fi network to which we want to connect
3. Once we find the network, select and click connect:
4. If it's a wide open network with no security, run the Engage Connectivity Test tool and email us the result. (Even if the network has no security, it may be configured in a way that makes the test fail. If so, Extractions will contact the IT person or vendor to resolve the issue.
5. If we hit a login page or splash page where you are asked to enter a username or code or promotion code or room number etc., provide the MAC addresses of our player and router to the location and ask for clearance to bypass this page. When MAC addresses are cleared, run the Engage Connectivity Test again.

## Caution Ahead!

Run the connectivity test from the exact location within the host location where the board will be placed.

This way, you are truly testing the signal strength and selecting the best network options that will be available.

# 3G/4G Connections

## What is a 3G/4G Connection?

- These connections are cellular connections used when the location cannot or will not provide our ExploreBoards/tablets with an Internet connection.
- A monthly data plan must be purchased through a carrier (T-Mobile, AT&T, etc.) to access the Internet.
- What you are essentially doing with the 3G/4G stick is creating a “hotspot” that will appear as an Internet option when a properly connected to a router.

## Pros of 3G/4G Connections:

- We own and control the 3G devices and decide on the best data plan to purchase.
- There is more flexibility on where an EB/tablet can be placed with the location.

## Cons of 3G/4G Connections:

- Additional costs (to us) are incurred since data plans and special equipment must be purchased and maintained.
- Cell signal strength can be inconsistent and is subject to interference and disruption from bad weather. Media files like photos and videos may not download properly if there is a weak signal.
- Troubleshooting the device requires on-site presence since we own the equipment.



## 3G/4G Connectivity Checklist

1. For 3G/4G connections, you are not running an Engage Connectivity Test, but you will want to confirm the signal strength prior to installation.
2. Using the activated 3G/4G stick that you intend to use, plug the stick's USB into your laptop's USB port.
3. Check the signal strength for the network in the same spot where you intend to install the ExploreBoard.
4. If the cell signal strength is weak, contact Extractions or consider a different location within the host property.

## Caution Ahead!

While uncommon, a few 3G/4G sticks in high traffic locations went missing... as a precaution, one market used a locking thermostat box to secure the 3G/4G to the back of the stand.



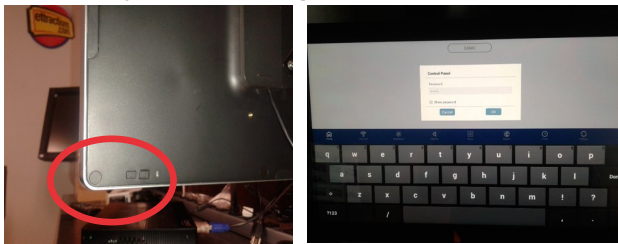
# Connecting Tablets

## How are ExploreBoard Tablets Unique?

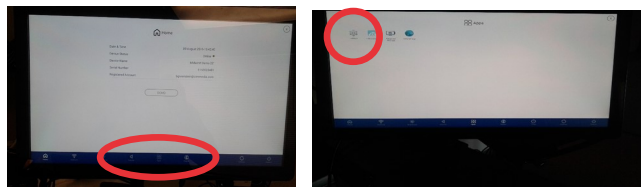
Tablets are essentially a screen and player hardware combination, so you will need to access their MAC address details slightly differently. In most cases, the tablet's MAC address will need to be cleared by the host network for Internet access.

## Finding the ExploreBoard Tablet's MAC Address for a Wired Connection

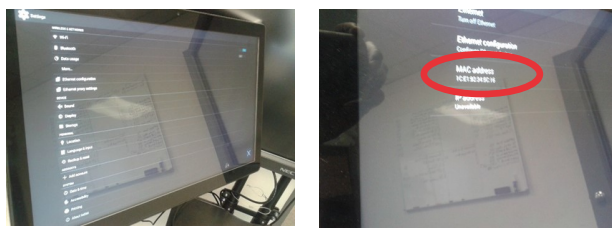
1. Push and simultaneously release the two buttons located on the back of the tablet (in the lower right corner if you are facing the front of the screen.)



2. Look for the Control Panel window and use the keyboard to type the password **1elo** and then hit **OK**.
3. On the Demo page that appears, notice the bottom blue line with white icons on the bottom of the screen. In the middle of the blue line, tap the **Apps icon**, which looks like four squares.



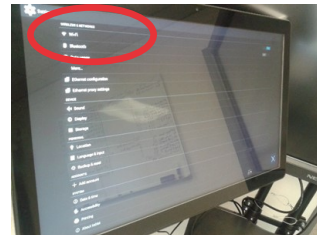
4. On the following screen, tap the **Settings** icon
5. When a list appears, select **Ethernet Configuration**



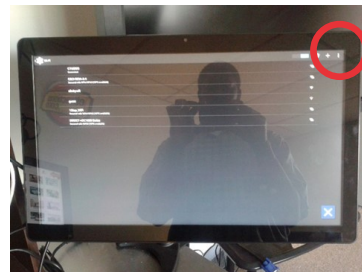
6. A screen will appear with a MAC address section where you can pull the necessary information.

## Finding the ExploreBoard Tablet's MAC Address for a Wireless Connection

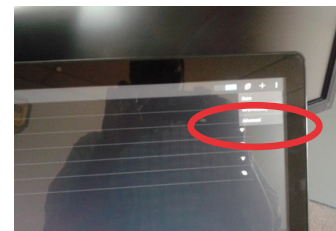
1. Follow steps 1-4 (on left) to get to the page with the list of options and select **Wi-fi** on the top left corner



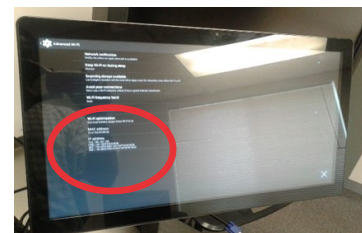
2. You should see a screen showing all the available Wi-Fi networks. Tap the **three square dots** on the top right corner of this screen



3. On the next screen select **Advance**



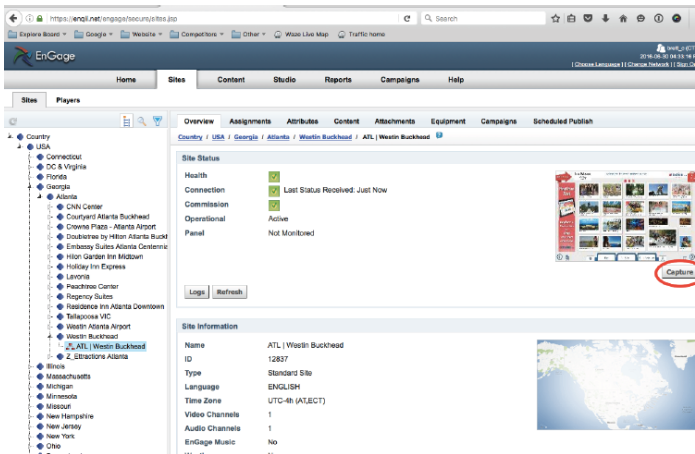
4. The next screen will show the MAC Address on the last line as well as the IP address



# Online Monitoring

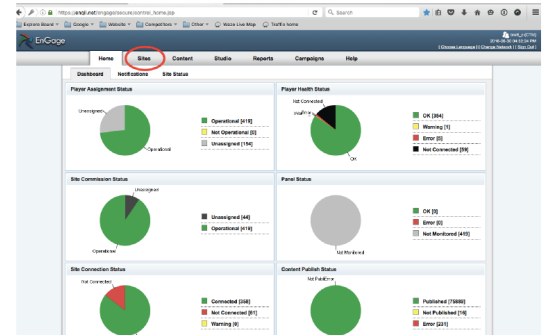
## Monitoring Your ExploreBoard Connections in Real Time

- Using Engage software, your Operations Manager is able to monitor your ExploreBoard network and grab screen captures of what is happening to your boards.
- Etractions monitors all EB locations using this same software and, if we are connected to your ExploreBoards properly, we can support and troubleshoot your host locations remotely.
- Using Engage, we can grab screen captures of what is appearing on your host location's screen using the "Capture" button.
- If the ExploreBoard is offline, it will also tell us when the last successful connection was achieved.
- When we are connected, we can reboot the ExploreBoards remotely as well and push files up manually, if necessary.

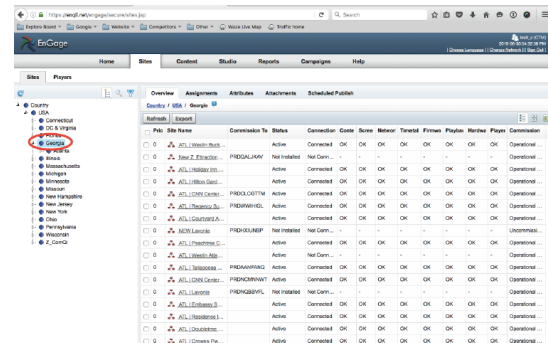


## Tablets:

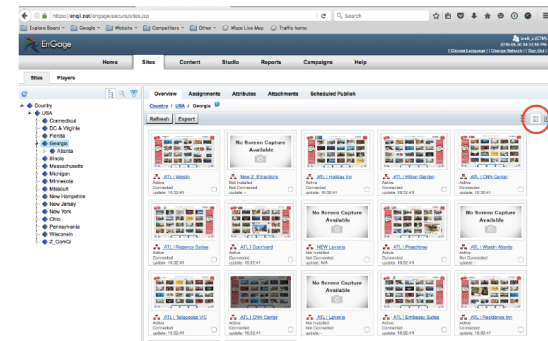
- Since the tablets do not use media players, real-time tablet screen shots are currently in a development stage; however, Etractions can track if a specific tablet connections in a separate software system called ELO View.



ENGAGE: Click on "Sites" on the top toolbar.



ENGAGE: Find your group/division in the list on the left column to see your host locations.



ENGAGE: Select the 4 windows icon to take a screen capture of all the ExploreBoards assigned to the group you have selected. Wait a few seconds for the screen captures to load.

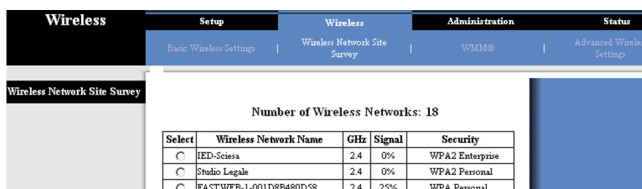
Click an individual location's image here to drill down further for the status of that location. (See larger image to the left for details.)



# Set-Up Guidance: Cisco Linksys

## Cisco Linksys WET610 & WES610

1. Connect power & Ethernet cords into Linksys device
2. Connect other end of Ethernet cord into laptop
3. Disconnect from any Wi-Fi connections on laptop, or disable Wi-Fi
4. Reset your Linksys with a paper clip, hold down for approximately 10 seconds
5. Wait 1-3 minutes until lights on Linksys are solid
6. Open up a browser on your laptop, preferably Chrome or Firefox
7. Type in **169.254.1.250** in the address bar and press enter
8. When prompted, **leave the user name blank**, and enter **"admin"** as password
9. When web interface page appears, click on Wireless Tab
10. Click on **Wireless Site Survey Tab** and wait for networks available to load



Select	Wireless Network Name	GHz	Signal	Security
<input type="radio"/>	EED-Scies	2.4	0%	WPA2 Enterprise
<input type="radio"/>	Studio Legale	2.4	0%	WPA2 Personal
<input type="radio"/>	FASTWEB-1-001D8B480D58	2.4	25%	WPA Personal

11. Connect to **designated network** with the highest percentage, i.e. HHONORS - 60%
12. If successful, a **"Connected"** page will display
13. If a **"Connected"** page does not appear follow directions below.
14. Repeat steps 4-10 above
15. Connect to a network with the second highest percentage
16. If still not successful, try the third, and fourth percentage
17. Call Ettractions after fourth unsuccessful attempt

### Wi-Fi Only Connections:



#### CISCO LINKSYS ROUTER:

The router (box) needs to be connected to a power source. Ethernet cable should be connected from the player to the router's single port.



CISCO LINKSYS ROUTER:



LAPTOP WITH AN ETHERNET CABLE PORT AND THE ENGAGE CONNECTIVITY TEST PRE-LOADED.



ETHERNET CABLE



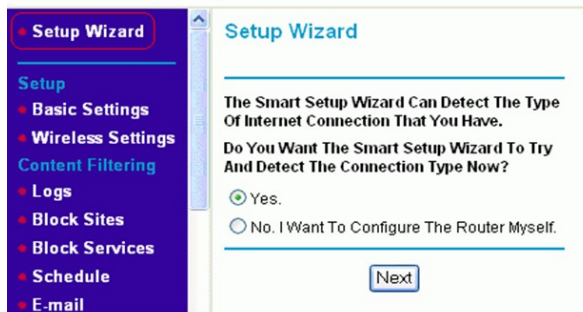
PAPERCLIP IS USED TO RE-SET THE ROUTER



# Set-Up Guidance: Netgear WNCE3001

## Netgear WNCE3001

1. Connect power & Ethernet cords into Netgear device
2. Connect other end of Ethernet cord into laptop
3. Disconnect from any Wi-Fi connections on laptop, or disable Wi-Fi
4. Reset your Netgear with a paper clip, hold down for approximately 10 seconds
5. Wait 1-3 minutes until lights on Netgear are solid
6. Open up a browser on your laptop, preferably Chrome or Firefox
7. Type in <http://www.mywifiext.com> in the address bar and press enter
8. When web interface page appears, click on **Setup Wizard**



9. Connect to **designated network** with the highest signal, i.e. HHONORS - 60%
10. If successful, a **“Connected”** page will be displayed
11. If a **“Connected”** page does not appear follow directions below.
12. Repeat steps 4-10 above
13. Connect to a network with the second highest percentage
14. If still not successful, try the third, and fourth percentage
15. Call Ettractions after the fourth unsuccessful try

### Wi-Fi Only Connections:



#### NETGEAR WNCE3001 ROUTER:

The router (box) needs to be connected to a power source. Ethernet cable should be connected from the player to the router's single port.



#### NETGEAR WNCE3001 ROUTER:



LAPTOP WITH AN ETHERNET CABLE PORT AND THE ENGAGE CONNECTIVITY TEST PRE-LOADED.



#### ETHERNET CABLE



PAPERCLIP IS USED TO RE-SET THE ROUTER

# Set-Up Guidance: Engenius Router Configuration

1. Power up the Router
2. Connect the Router to your Laptop via an Ethernet cable
3. **Disable the Wireless card** on your laptop and **open up a browser** (Chrome, Firefox, etc.)
4. Type in the browser **192.168.0.1**
5. Select **Expert Mode** to display the Login Page
6. Type in the default password: **admin** and click Login
7. Click on **System**
8. Click on **Operation Mode** and Select **Client Bridge** in the drop down menu and click **Apply**
9. Wait for the router to configure to **Client Bridge Mode**
10. Click on **Wireless** and then click on **Basic**
11. Click on **Site Survey** and click on **Apply**
12. The router will present a list of all the networks available in the area in a table
13. Select the **Network** you want to connect to and scroll down the page to click on **Add to AP Profile**
14. If a password is required you'll be presented with a blank window named **Pre-shared Key**; Type in the **password** and click **Save**
15. Click on **Close**
16. You'll now be presented with an **AP Profile Table** that shows you the **network** you selected and the option to select it again. **Select it again** by checking the last box and click on **Connect**.
17. The Router should connect to the network
18. If the router says "**Connection Status Failed**," reset the router by pressing on the **WPS button** (the only button on top of the device) for 15 seconds and restart the process. If it fails again, contact Ettractions
19. If the connection status is successful open a browser on your laptop and browse a website; if successful, disconnect the Ethernet cable from the laptop, connect it to the Media Player and restart the Media Player. If it picks up an IP, make sure you **check the maps** and **send an email or text message**.

## Wi-Fi Connections:



### ENGENIUS ROUTER:

The router (box) needs to be connected to a power source. Ethernet cable should be connected from the player to the router.



ENGENIUS ROUTER



LAPTOP WITH AN ETHERNET CABLE PORT AND THE ENGAGE CONNECTIVITY TEST PRE-LOADED.



ETHERNET CABLE

# Set-Up Guidance: TP-LINK 3G Router

## TP Link 3G Router

1. Connect power & Ethernet cord into TP-Link device
2. Insert 3G USB into TP-Link router
3. Connect other end of Ethernet cord into laptop
4. Disconnect from any Wi-Fi connections on laptop, or disable Wi-Fi
5. Make sure the TP-Link's switch is on **3G**
6. Insert 3G USB into TP-Link router
7. Open up a browser on your laptop, preferably Chrome or Firefox and type in **192.168.0.1** in the address bar and press **enter**
8. When prompted for username and password, enter "**admin**" for both
9. Click **Quick Setup** then **Next**
10. Select **3G/4G** Only and click Next
11. Select "**T-Mobile**" in the ISP Drop down and click **Next** (assumes T-Mobile is carrier)

### Quick Setup - 3G/4G

If your location or ISP is not listed, or the default Dial number / APN is not the latest one, or your name and password, please enable **Set the Dial Number, APN, Username and Password manually**

Location:	<input type="text" value="USA"/>
Mobile ISP:	<input type="text" value="AT&amp;T"/>
	Default Dial Number: <b>**99#</b> APN: <b>"broadband"</b>
SIM/UM PIN:	<input type="text" value="****"/>
Message:	<b>PIN code verification is successful.</b>
Authentication Type:	<input checked="" type="radio"/> Auto <input type="radio"/> PAP <input type="radio"/> CHAP

12. Select **Disable** on the Wireless Radio and click **Next**

Wireless Radio:	<input type="text" value="Enable"/>
Wireless Network Name:	<input type="text" value="TP-LINK_POCKET_3020_302060"/> (Also called the SSID)
Region:	<input type="text" value="United States"/>

13. Allow the device a few minutes to get an Internet connection

### Wi-Fi-OR-3G Connections:



#### TP-LINK ROUTER:

The router (box) needs to be connected to a power source. Ethernet cable should be connected from the player to the router. **Can be used as a Wi-Fi or 3G device (with activated USB 3G stick.)**



TP-LINK ROUTER



3G/4G STICKS WITH USB CONNECTION



LAPTOP WITH AN ETHERNET CABLE PORT AND THE ENGAGE CONNECTIVITY TEST PRE-LOADED.

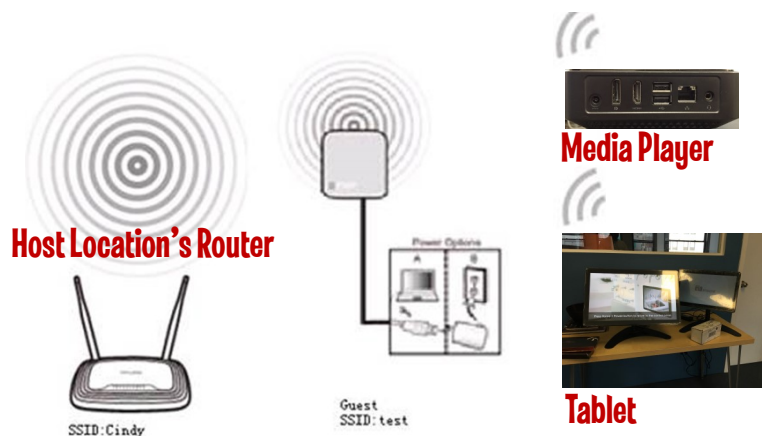


ETHERNET CABLE

# Set-Up Guidance: TP-LINK Wi-Fi

## TP Link for Wi-Fi

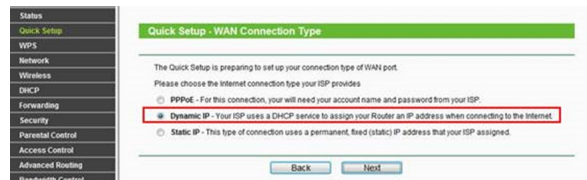
1. Connect power & Ethernet cords  
Access web interface of the TP-Link
2. **192.168.0.1** for the flat one or **192.168.0.251** for the cubic one.
3. Username is: **admin** | Password is: **admin**
4. Go to **Quick Setup**-> Click **Next**
5. Choose **Dynamic IP** (In rare cases we might have to choose the other option depending on the location's Internet Provider connection type).
6. Procedures are different according to the Connection Type you choose. Click **Survey** and **Next**
7. Find the **root router's SSID**, then click on **Connect**.
8. Client Setting: Confirm the Wireless Key type and input the same **wireless password** of your root router.
9. AP Setting: Do not change the Local SSID (It is different from the location's SSID) click **Next**, Click **Reboot**, and wait until it goes to 100%.
10. We should be connected now to the Internet



TP Link takes the wireless signal from "Cindy" and passes it on to the Media Player or tablet via Ethernet Cable



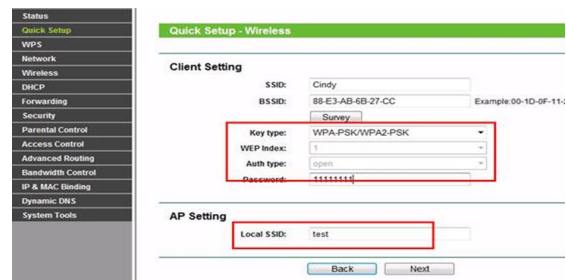
QUICK SET-UP PAGE:  
Click "Next".



QUICK SET-UP WAN CONNECTION TYPE PAGE:  
Select "Dynamic IP" option.



AP SETTINGS PAGE:  
Select "Cindy" option.



QUICK SETUP-WIRELESS PAGE:  
Confirm the Wireless Key type and enter the same Wireless password of your root router.



QUICK SETUP- FINISH PAGE:  
Select "Reboot" option.

# Set-Up Guidance: IOGEAR Wi-Fi Router

## IOGEAR for Wi-Fi

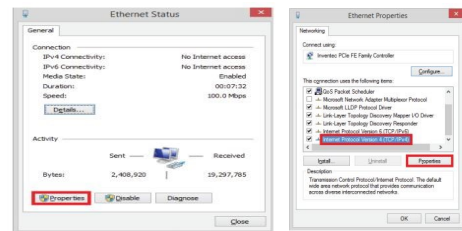
1. Disable your laptop's wireless card.
2. Connect the IOGEAR router using the USB power adapter and the single USB portion one end of the router to power it up.
3. Connect the router to the laptop using an Ethernet cable.
4. Set laptop up using the IP settings below:  
**IP: 192.168.1.253**  
**Subnet Mask: 255.255.255.0**
5. On screen, click the **Start** button
6. Open the **Control Panel** and select **Network and Sharing Center**
7. Click on **Ethernet**
8. In **Ethernet Status** window, click on the box labeled **Properties**
9. In **Networking** tab, select **Internet Protocol Version 4**
10. In **Internet Protocol Version 4 Properties** window select the button for **Use the following IP address:**  
**IP: 192.168.1.253**  
**Subnet Mask: 255.255.255.0**
11. **Open a browser** (Chrome, Internet Explorer or Firefox) and type **192.168.1.254**
12. In **Authentication Required** window type using lower case letters:  
**User name: admin**  
**Password: admin**
13. In IOGEAR window, click **Search** button
14. A window will open showing a list of available area networks. **Select your assigned network**, scroll to the bottom and click **"Done"**
15. If network is secured, choose the **Encryption** setting and enter the **Pre-Shared Key** (password) and click **"Apply"**
16. Close browser window, go back to **Control Panel** and reset the IPV4 settings to **"Obtain an IP Automatically"**
17. Router should be connected. Test by browsing online, then connect router to media player.



CONTROL PANEL: Click "Network and Sharing Center"

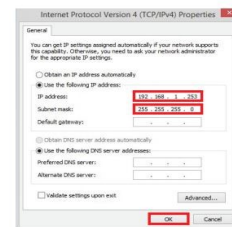


CHOOSE ETHERNET

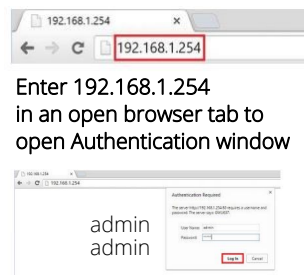


ETHERNET STATUS: Select "Properties" in the "General" tab

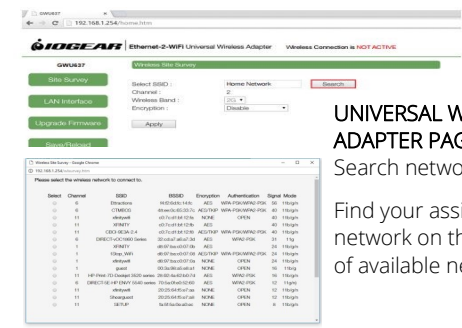
ETHERNET PROPERTIES: Select "Internet Protocol Version 4" in the "Networking" tab



Enter IP & Subnet fields

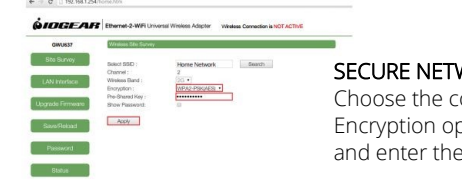


Enter 192.168.1.254 in an open browser tab to open Authentication window



UNIVERSAL WIRELESS ADAPTER PAGE: Search networks

Find your assigned network on the list of available networks.



SECURE NETWORK? Choose the correct Encryption option and enter the password



# Pop Quiz!

- What ExploreBoard features will not work if the screen is not connected to the Internet?
- An Ethernet cable and port most closely resembles what other type of cable/port/connection?
- What is the most stable type of Internet connection for an ExploreBoard/tablet?
- What is the importance of “clearing a MAC address?”
- What information should you provide to the host location’s IT contact in order to become a trusted device on their secure network?
- What are the possible options to connect an ExploreBoard tablet to the Internet?
- If a connectivity test fails, what are your next steps? Who should be involved if connectivity issues persist?
- What are the pros/cons of each type of ExploreBoard connection options?

# FAQs

## Do we still run the connectivity test even when the location says their network is open and has no security?

Yes! Security is just one aspect that is tested. Closed ports will also cause the test to fail.

## What if the connectivity test passes with my laptop after I enter the username and password on the host Internet’s splash/login page?

ExploreBoards are not laptops. The MAC address for the media player and router will still need to be cleared.

## If we are using a hardline and the host location’s wall plate has two Ethernet ports, are they interchangeable?

Nope. Each port is unique because one will need to be specifically configured for the ExploreBoard. Other ports, no matter how close, won’t work. Make sure the host location distinctively marks “our” port so we can connect successfully.

## Do we still need to run a connectivity test with 3G/4G?

Yes. We still need to confirm that the wireless provider (AT&T or T-Mobile) has acceptable coverage in the area where the ExploreBoard is going.

## Can’t we just plug the 3G/4G device directly in to the media player?

No, you will still need to set up and configure a router to access the Internet using a 3G/4G stick.