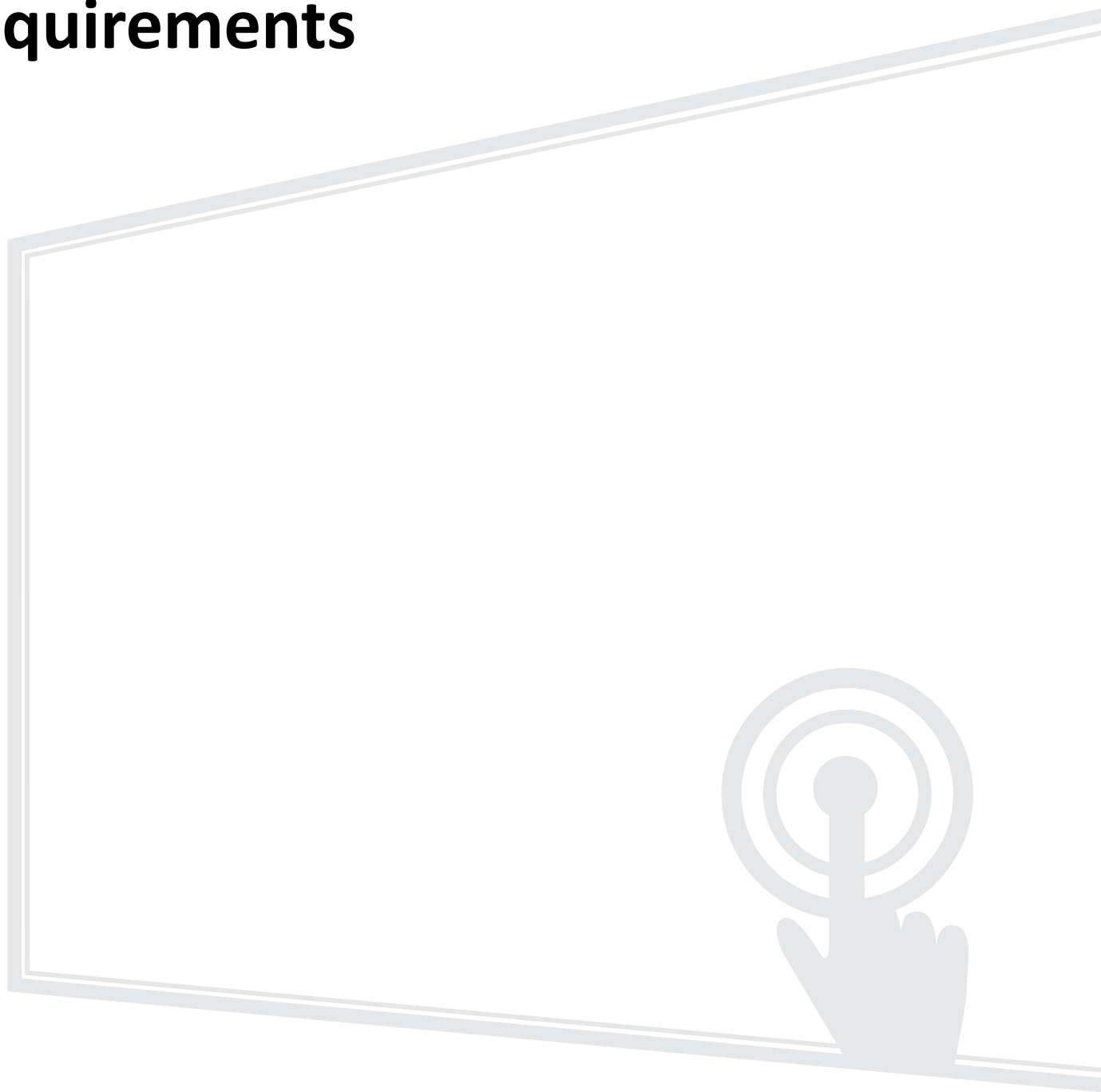


# ViewBoard® Network Requirements



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# Introduction

This guide will introduce the network requirements for ViewBoard's preloaded software and help IT administrators setup ViewBoard® products within their IT infrastructure.

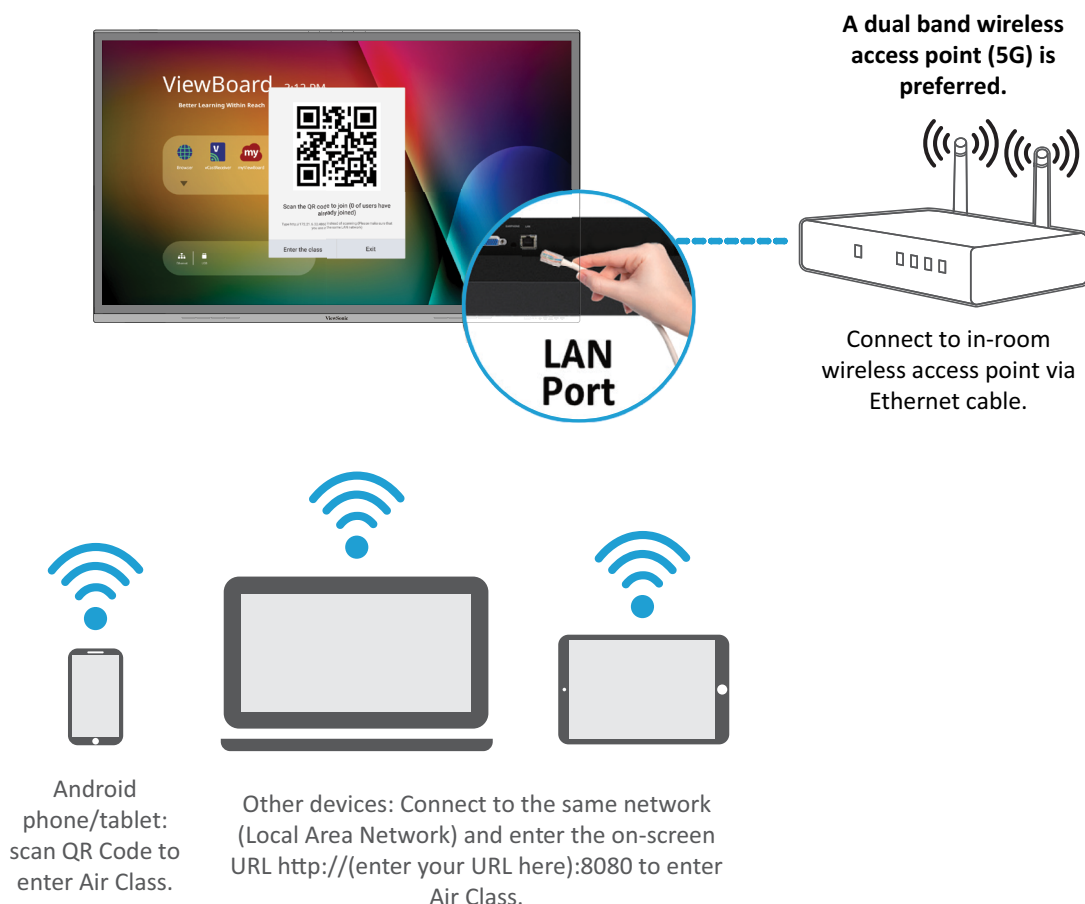
**NOTE:**

- Please ensure the wireless infrastructure supports broadcast service and it is turned ON.
- For a more stable connection, it is recommended to have any ViewBoard® connected via LAN by Ethernet cable, and client devices on a 5 GHz Wi-Fi band.

# Air Class

Display quiz questions on a ViewBoard® and allow up to 30 mobile users to submit answers remotely. Whether administering single or multiple-choice questions, the ViewBoard® will record the results of each device being used.

## Air Class



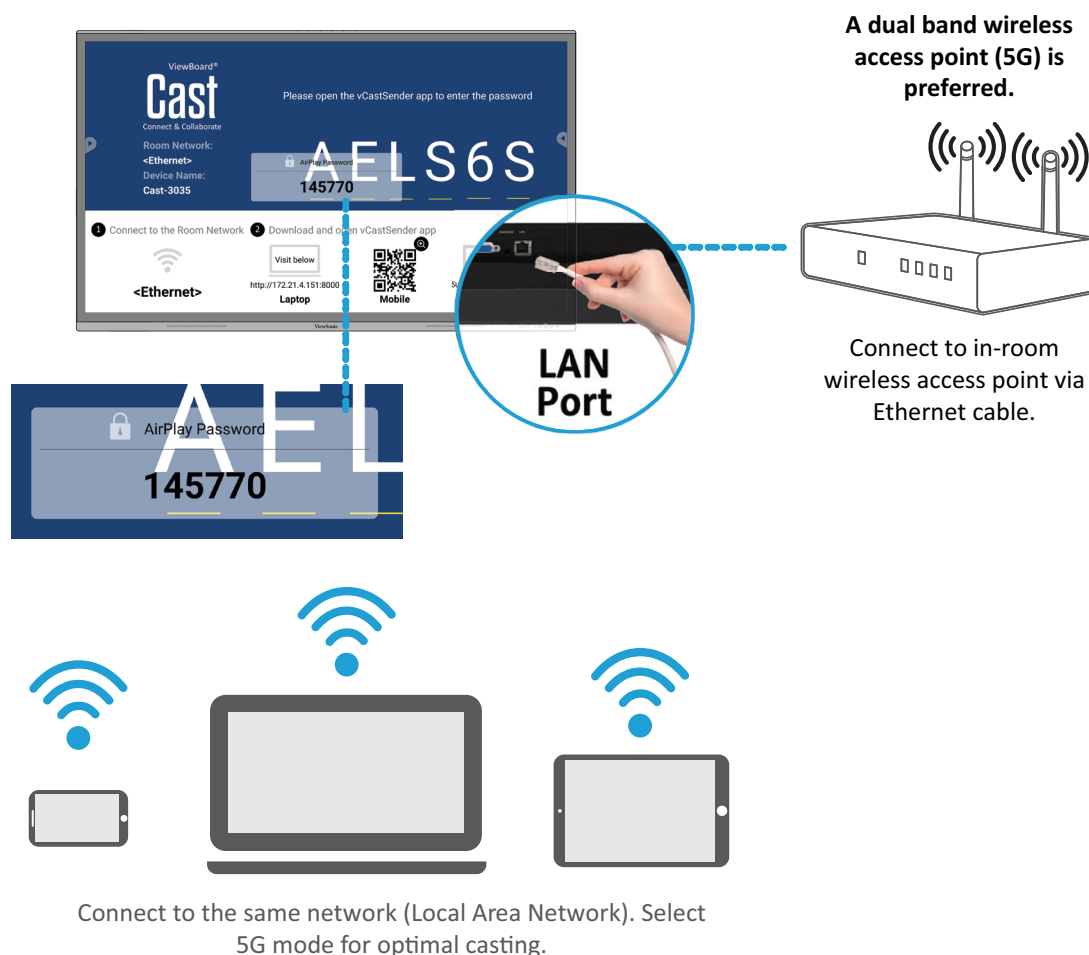
## Network Information

- PC (Windows/Mac/Chromebook) and tablet/mobile (iOS/Android) devices, as well as the ViewBoard®, need to be connected to the same network subnet.
- Port: TCP 8080

# AirPlay Service

**NOTE:** Please ensure that mDNS is enabled on the network/access point/ wireless controller (if applicable).

## AirPlay



## Network Information

- Ports:
  - » TCP 51040, 51030, 51020 & 51010
  - » UDP 5353 (mDNS to broadcast Airplay)
  - » UDP random port with a range of 52000~53000 (Transfer audio; assigned by AirPlay protocol)

## How to Verify AirPlay is Broadcasting

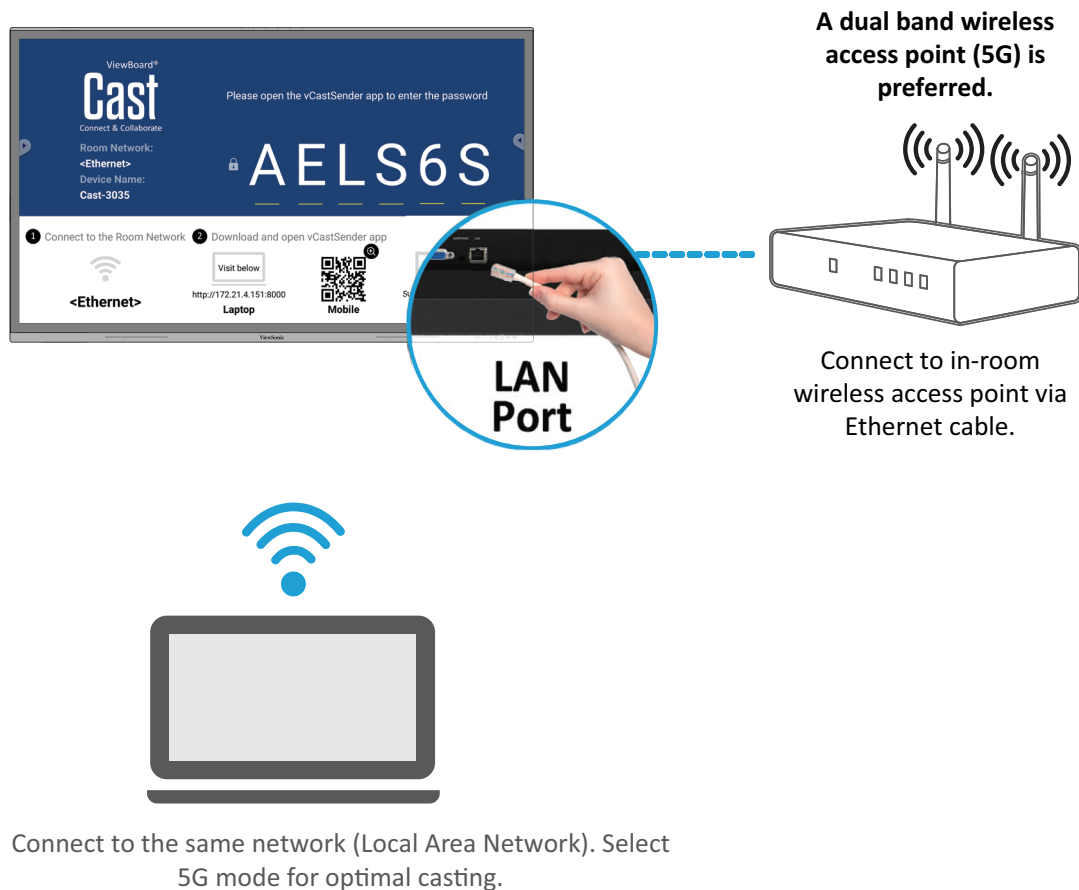
1. Ensure that your iOS device and the ViewBoard® are connected to the same subnet network.
2. Open the Control Center and select AirPlay Mirroring on the iOS device (e.g., iPhone/iPad).
3. Find a device prefixed with “Cast-xxxx”.
4. If “Cast-xxxx” is showing then this confirms that vCast is broadcasting AirPlay services.
5. Click on the broadcasted “Cast-xxxx” device to mirror your iOS device to the ViewBoard®.

# Chromecast Service

ViewBoard® Cast software supports native Chromecast screen sharing via the Chrome browser casting with the Chromecast feature enabled.

**NOTE:** Please ensure that mDNS is enabled on the network/access point/wireless controller (if applicable).

## Chromecast



## Network Information

- Ports:
  - » TCP 8008 & 8009
  - » UDP 5353 (mDNS to broadcast CCast)

## How to Verify Chromecast is Broadcasting

1. Ensure that your Chromebook and ViewBoard® are connected to the same subnet network.
2. Bandwidth: At least 2~5 Mbps per user in a typical deployment. Latency should be less than 100 ms when pinging Google's public DNS server at 8.8.8.8; for HD video streaming > 5 Mbps is required.
3. Access points:
  - » For small deployments of under 30 devices, consumer-grade networking equipment is sufficient.
  - » For deployments greater than 30 devices or involving multiple rooms, enterprise-grade, centrally managed networking equipment is recommended.

### NOTE:

- It is recommended to use Wi-Fi 802.11n 5 GHz.
- Please refer to a 5 GHz channel guide for a table on non-DFS channels in your country. In the USA, those channels are 36~48 and 149~165.

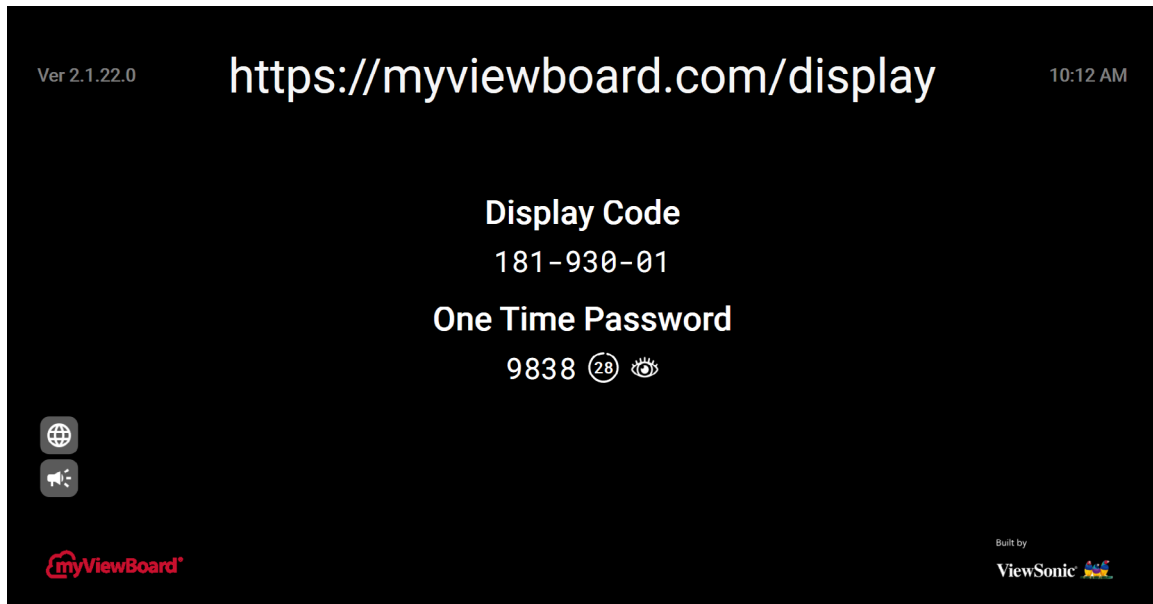


# Display Service

myViewBoard Display allows users to mirror their desktop wirelessly to supported Interactive Flat Panels (IFP) and Wireless Presentation Displays (WPD).

myViewBoard Display comes pre-installed on select ViewBoard® hardware, but can also be installed manually on any IFP or WPD that runs Android 6 or higher.

Once myViewBoard Display is installed on an IFP or WPD, users will only need to use a compatible browser to start mirroring their device screen to the host.



## Network Information

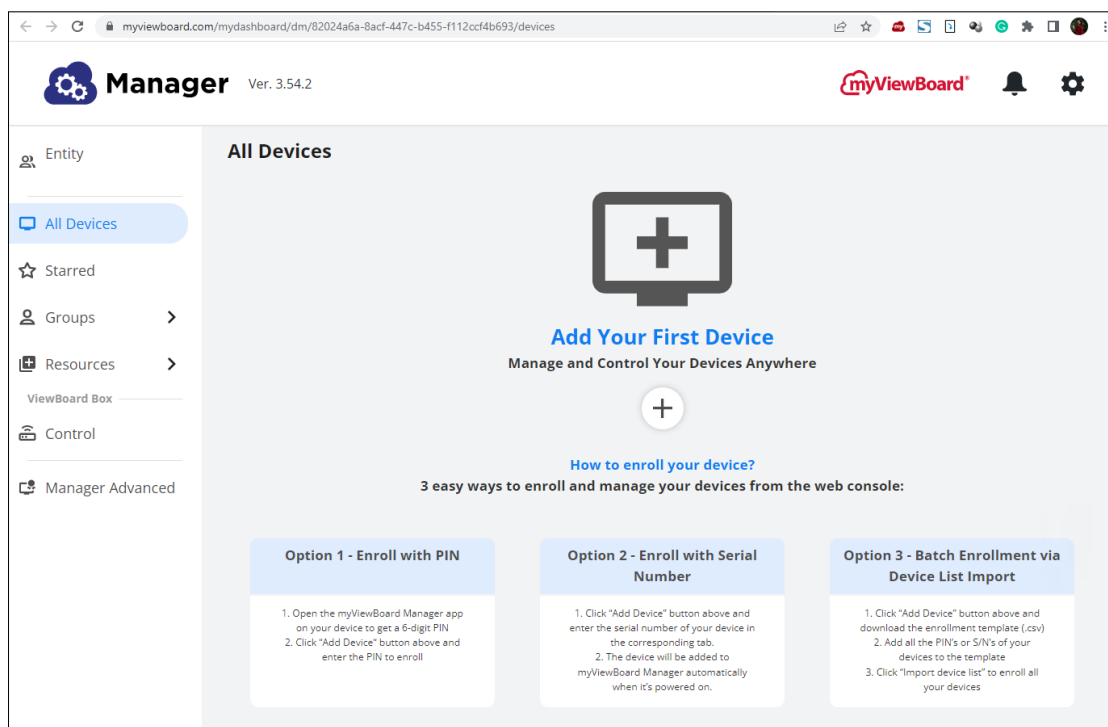
- Ports:
  - » TCP Port 443 (HTTPS): outbound
  - » UDP and TCP port 3478 bidirectional to the WebRTC servers
  - » UDP Ports 50,000 – 65,535 (RTP/sRTP/RTCP) bidirectional to the WebRTC servers (These ports are optional; if blocked, media will be proxied using TURN on port 3478.)

# Manager Service

myViewBoard Manager is a tool for Entity Administrators to remotely manage multiple installations of ViewSonic visual solution devices such as a ViewBoard®.

To access, select the Entity Management tile, then **All Devices** on the side panel.

**NOTE:** This option is only available for users signed in using an Entity Administrator account. To learn more, visit: <https://myviewboard.com/kb/manager>.



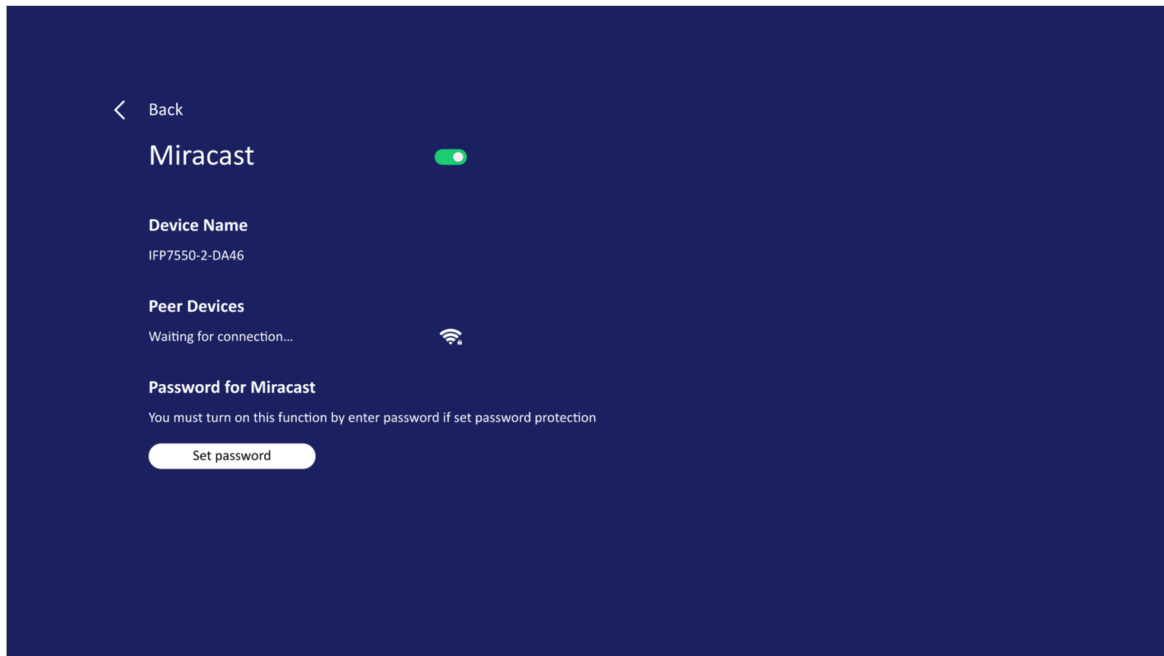
## Network Information

- Ports:
  - » TCP Port 443 (HTTPS): bidirectional
- Whitelist Domains:
  - » \*.myviewboard.com
  - » \*.myviewboard.cloud
  - » myviewboardclips.com
  - » \*firebraseio.com
  - » \*amazonaws.com

# Miracast Service

Miracast helps you wirelessly stream content from Windows and Android devices to an Interactive Flat Panel (IFP) or Wireless Presentation Display (WPD).

**NOTE:** Please ensure that mDNS is enabled on the network/access point/wireless controller (if applicable).



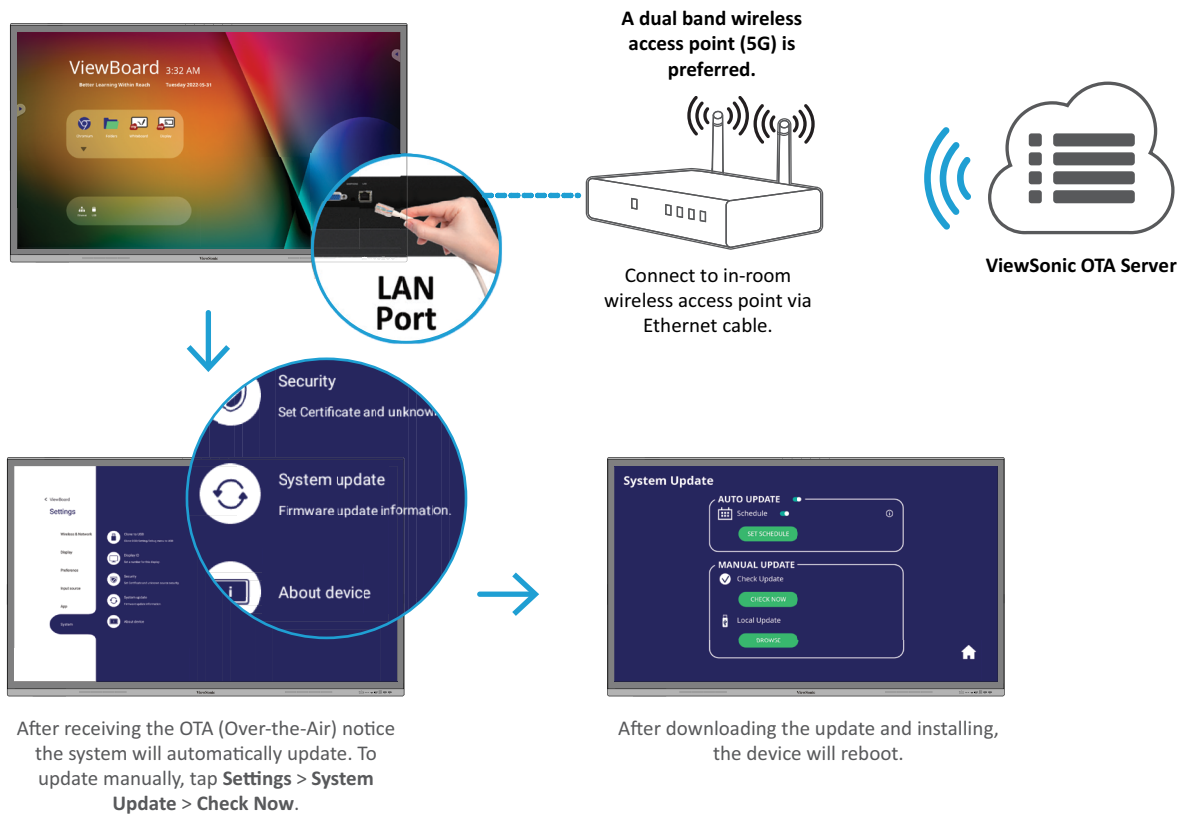
## Network Information

- Ports:
  - » TCP Port 7236 : Wi-Fi direct control port used to establish and manage sessions between the source device and ViewBoard.
  - » UDP port 21200 for RTP packets and UDP port 21201 for RTCP packets.
  - » UDP 5353 for multicast DNS (mDNS) broadcast to the local subnet.
  - » IP address(s): IPv4 address: 192.168.49.0, subnet mask: 255.255.255.

# Over-the-Air (OTA) Service

If Auto Update is enabled on a ViewBoard® and it is connected to the Internet, it will automatically search for firmware updates. If an update is available, the ViewBoard® will automatically download and install it then reboot.

## OTA Service



## Network Information

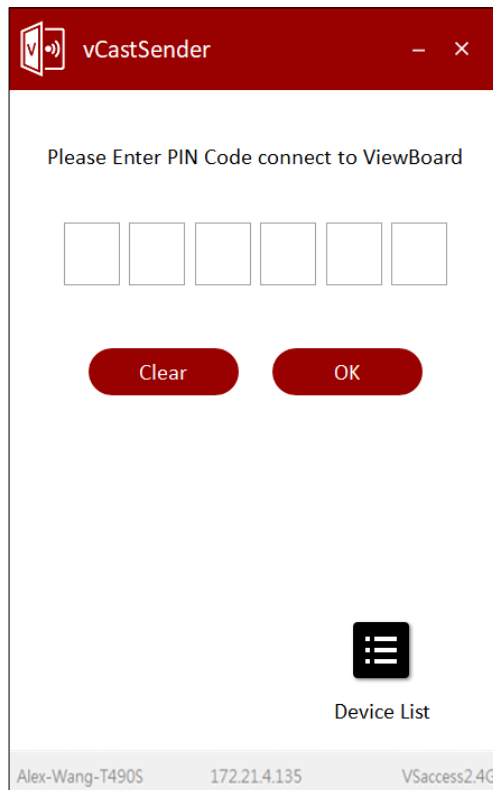
- Server FQDN Name: ifp-ota.s3-accelerate.amazonaws.com, www.viewsonicglobal.com
- Server Port: TCP 443

# vCast & vCastSender Service

Working with ViewBoard® Cast software, the vCast application, will allow the ViewBoard® to receive vCastSender laptop screens (Windows/Mac/Chrome) and mobile (iOS/Android) users' screens, photos, videos, annotations, and camera(s).

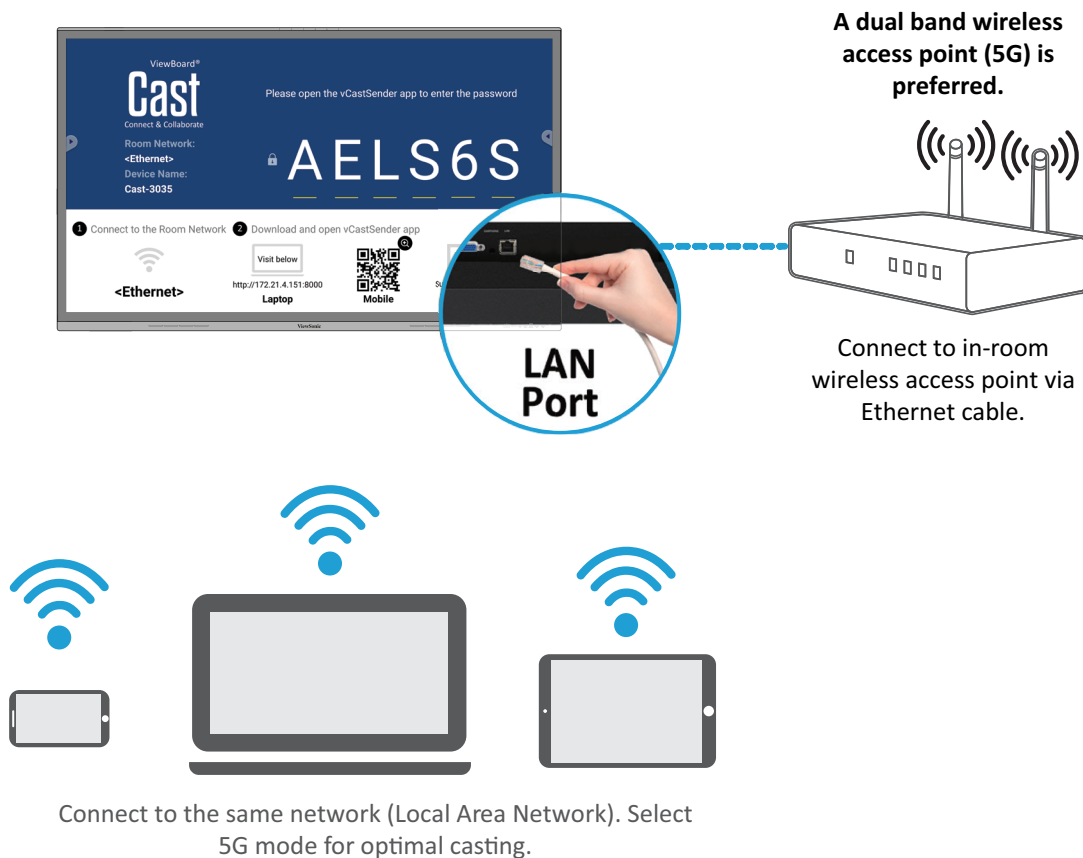
## Network Information

- ViewBoard® Cast software, laptops, and mobile devices can connect to both the same subnet and cross subnet network.
- Please enter the on-screen PIN-code to connect to the ViewBoard®.



The screenshot shows the vCastSender application window. The title bar is red with the vCastSender logo and window controls. The main content area has a white background with the text "Please Enter PIN Code connect to ViewBoard". Below this text are six empty square boxes for entering a PIN code. Under the boxes are two red buttons labeled "Clear" and "OK". At the bottom right, there is a black icon representing a device list and the text "Device List". The bottom status bar is light gray and contains the text "Alex-Wang-T490S", "172.21.4.135", and "VSaccess2.4G".

## vCast



- Ports:

- » TCP 56789, 25123, 8121 & 8000 (Controlling message port & client device audio transfer)
- » TCP 8600 (BYOM)
- » TCP 53000 (Request share screen)
- » TCP 52020 (Reverse control)
- » TCP 52025 (Reverse control for ViewBoard Cast Button)
- » TCP 52030 (Status sync)
- » TCP 52040 (Moderator mode)
- » UDP 48689, 25123 (Device searching and broadcast & client device audio transfer)
- » UDP 5353 (Multicast search device protocol)

- Port and DNS for Activation:

- » Port: 443
- » DNS: <https://vcastactivate.viewsonic.com>

- OTA Service

- » Server Port: TCP 443
- » Server FQDN Name: <https://vcastupdate.viewsonic.com>

