



ViewBoard Network Requirements

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Introduction

This guide outlines the network requirements for ViewBoard's preloaded software and assists IT administrators in setting up ViewBoard products within their IT infrastructure.

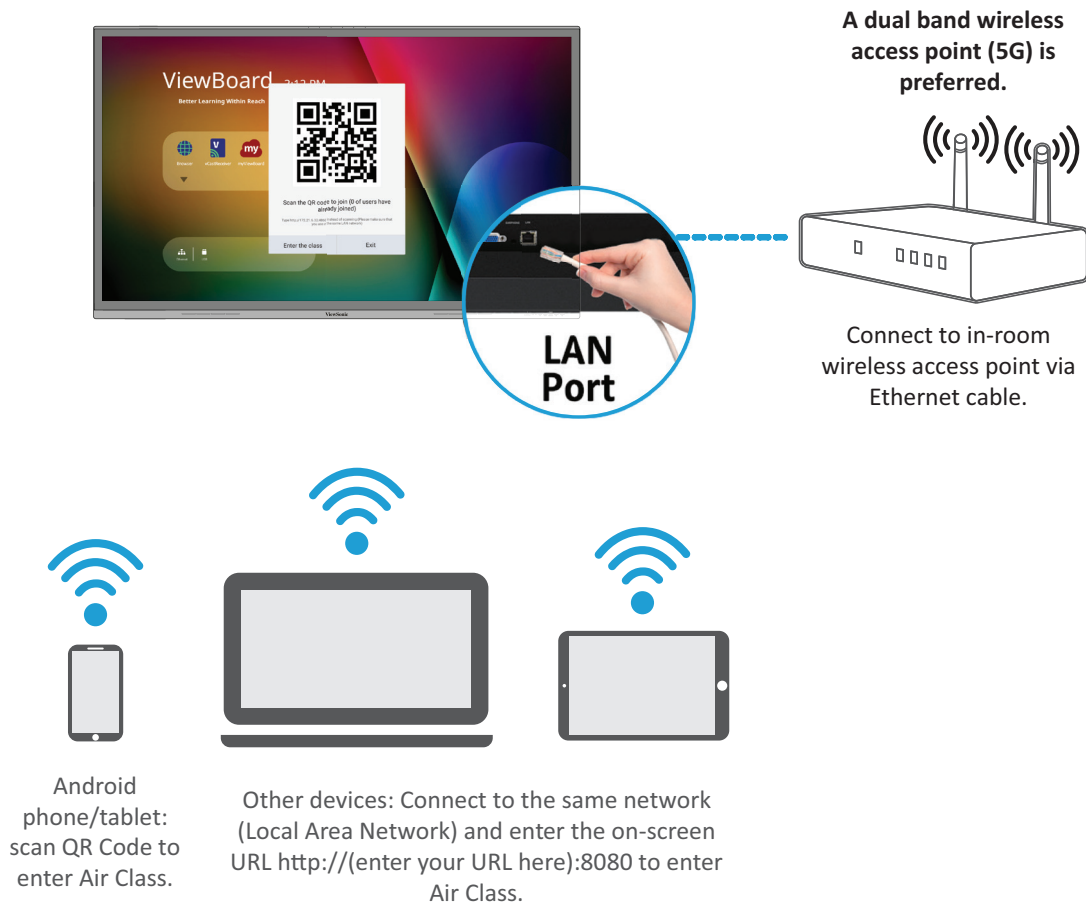
Note:

- Ensure the wireless infrastructure supports broadcast service and is enabled.
- For a more stable connection, connect ViewBoard devices via Ethernet cable and client devices to the 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



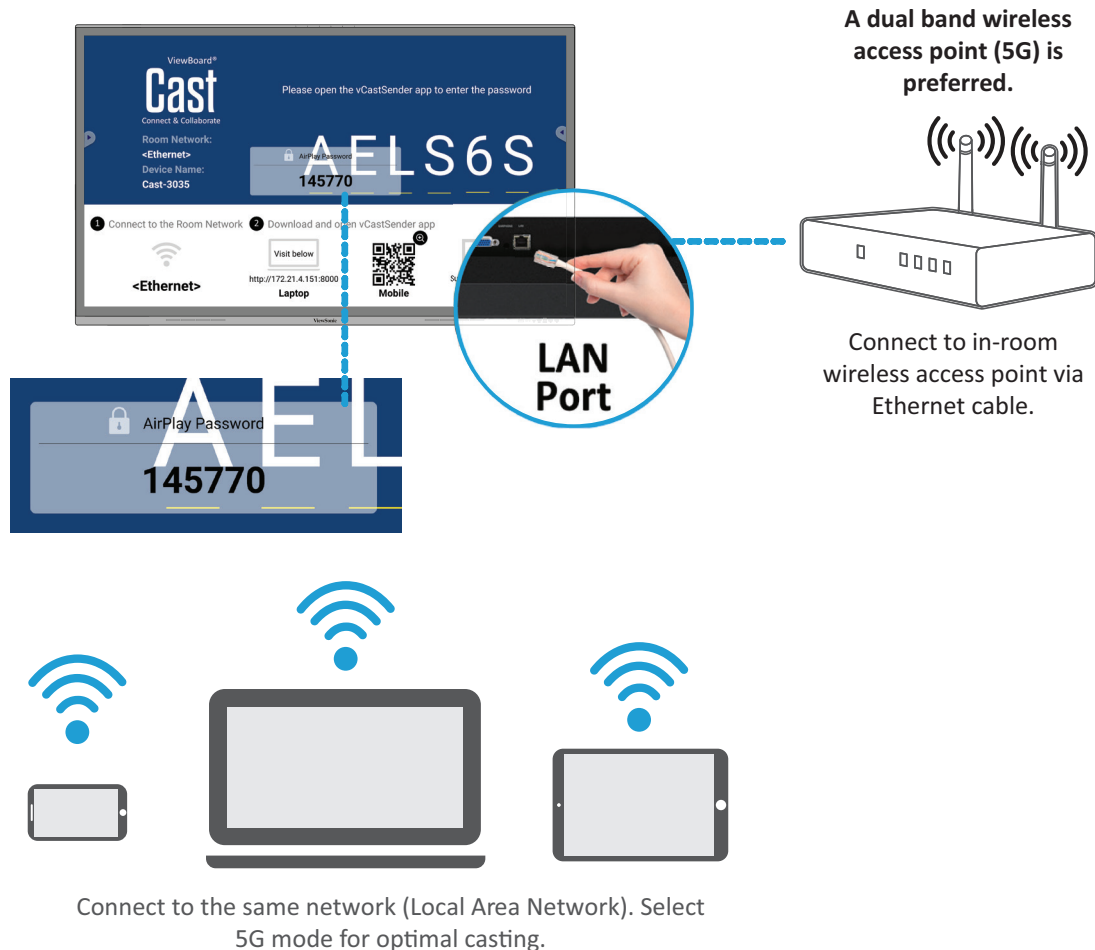
Network Information

- PCs (Windows/Mac/Chromebook), mobile (iOS/Android) devices, and ViewBoards, must be connected to the same network subnet.
- Port: TCP 8080

AirPlay

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

AirPlay



Network Information

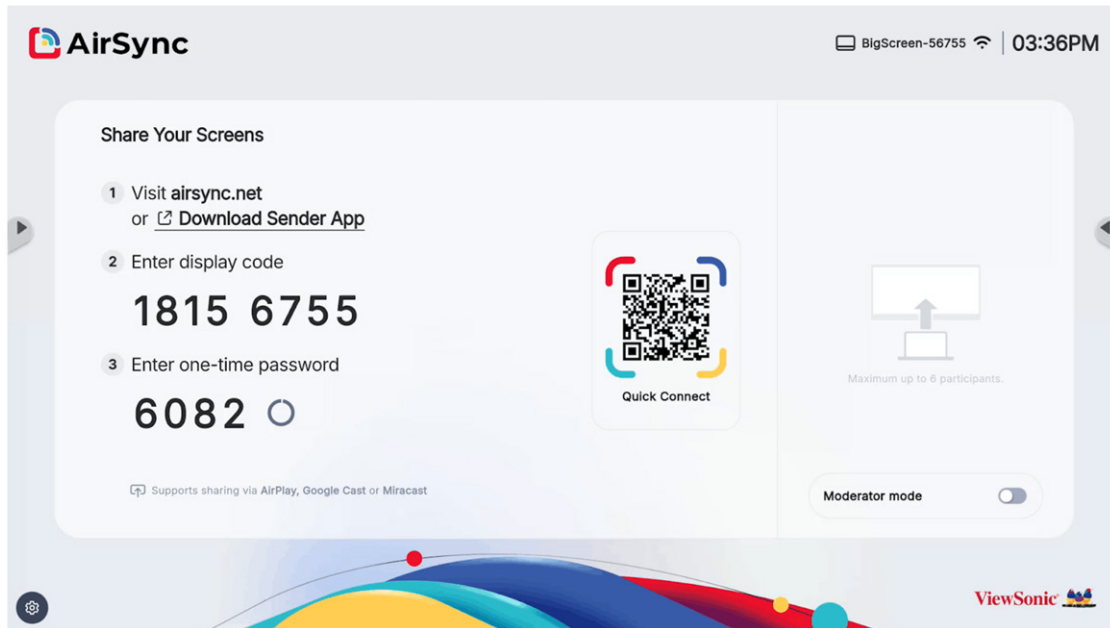
- Ports:
 - » TCP 51040, 51030, 51020 & 51010
 - » UDP 5353 (mDNS to broadcast Airplay)
 - » UDP random port with a range of 52000–53000 (Transfer audio; assigned by AirPlay protocol)

How to Confirm 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.

AirSync

AirSync is a wireless screen-sharing solution that enables seamless screen sharing between a user's device and ViewSonic interactive flat panel (IFP) displays.



On supported IFPs, AirSync is pre-loaded on the system and does not require additional installation. To connect with the AirSync on the IFP, it is highly recommended for target devices to use the AirSync sender for sharing. The AirSync Sender supports several platforms. Download the version that matches the OS of your target device.

Network Information

Relay Connection

Relay connections are used in scenarios where direct connections between devices are not possible due to network configurations.

With Wildcards

- TCP 443 for *.myviewboard.cloud
- TCP 443 for *.myviewboard.com
- TCP 443 for *.viewsonic.com
- TCP 443 for *.airsync.net

Without Wildcards

For firewalls that don't allow wildcards.

- TCP 443 for:
 - » airtsync.net
 - » www.airsync.net
 - » airtsync.viewsonic.com
- TCP 443 for:
 - » api.gateway.airsync.net
 - » us-east-1.gateway.airsync.net
 - » ap-northeast-1.gateway.airsync.net
- TCP 443 for appconfig.airsync.net
- TCP 443 for getice.myviewboard.cloud
- TCP 443 for store2.myviewboard.com (OTA)
- TCP 443 for store2.airsync.net (OTA)

Video/Audio (WebRTC)

- TCP 443 for turn.myviewboard.cloud
- TCP 3478 for turn.myviewboard.cloud
- UDP 3478 for turn.myviewboard.cloud (Optional)
- Local UDP ports 32768–61000

Local Connection (Direct connection)

Establish a network connection directly between devices within the LAN without relying on external servers or services.

- TCP 5001

Remote Screen

- TCP 7000

Video/Audio (WebRTC)

Random UDP ports in the range of 32768–61000

Mirror

AirPlay, Googlecast, and Miracast do not require access to the Internet.

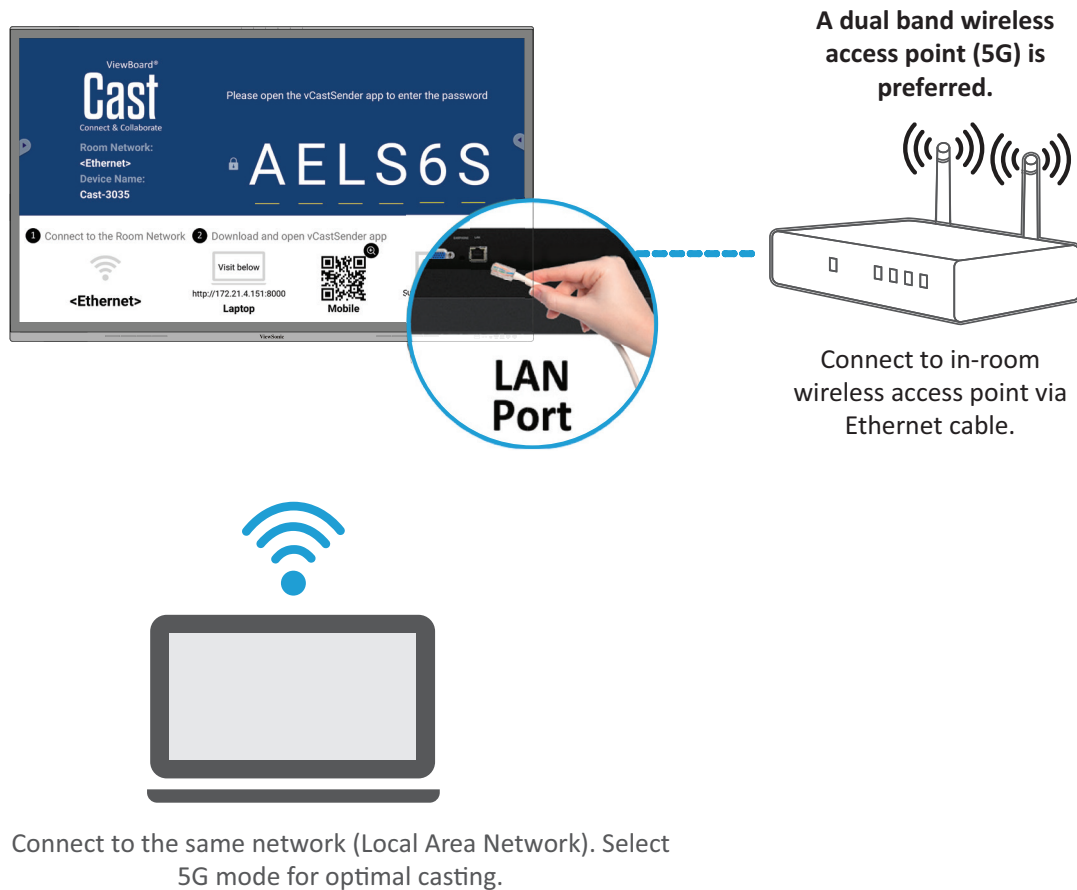
- AirPlay, Google Cast
 - » Does not work in different subnet/VLAN
 - » Random UDP ports in the range of 32768–61000
- Miracast
 - » Use Wi-Fi Direct (WiFi P2P). Does not require wireless AP.

Chromecast

vCast supports native Chromecast screen sharing via the Chrome browser casting when the Chromecast feature is 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 Confirm 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:

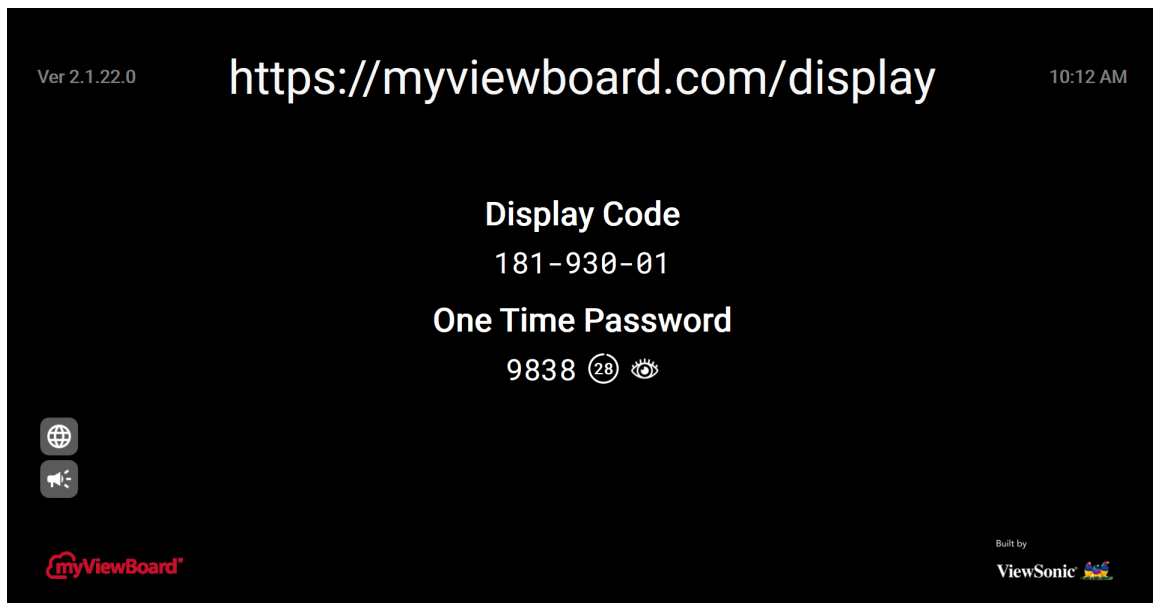
- It is recommended to use Wi-Fi 802.11n 5 GHz.
- Please refer to a 5 GHz channel guide for a table on non-DFS channels in your country. In the USA, those channels are 36–48 and 149–165.

Display

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

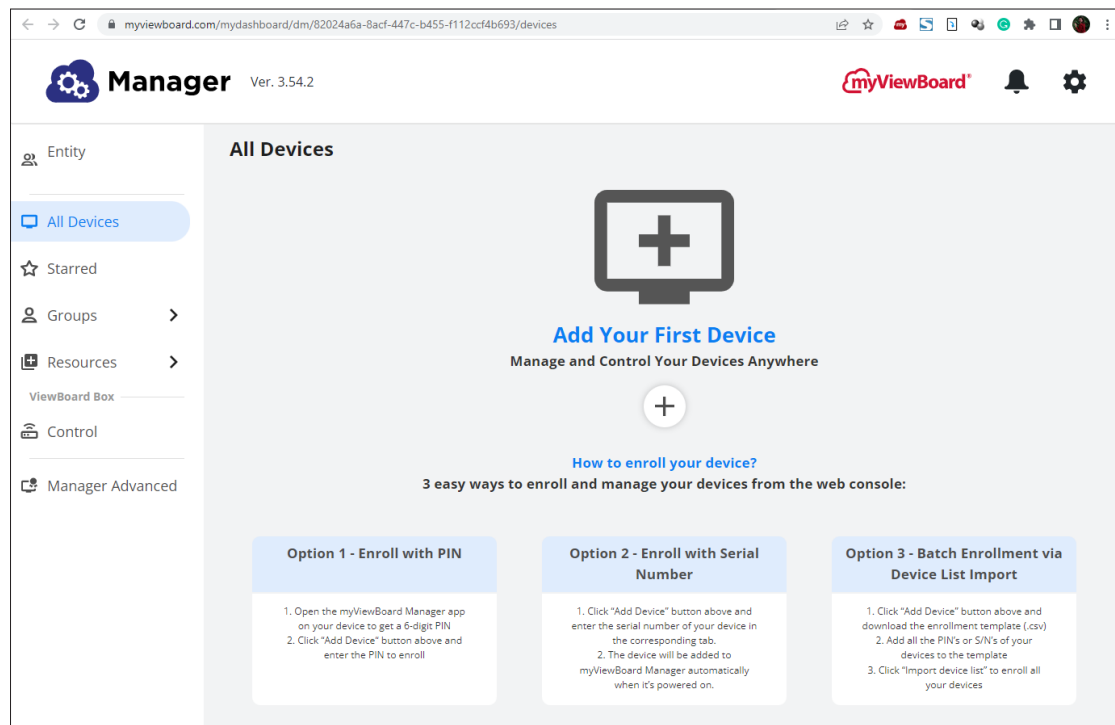
- Ports:
 - » TCP Port 443 (HTTPS): outbound
 - » UDP and TCP port 3478 bidirectional to the WebRTC servers
 - » UDP Ports 50,000–65,535 (RTP/sRTP/RTCP) bidirectional to the WebRTC servers (These ports are optional; if blocked, media will be proxied using TURN on port 3478.)

Manager

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/en_US/getting-started/overview-manager



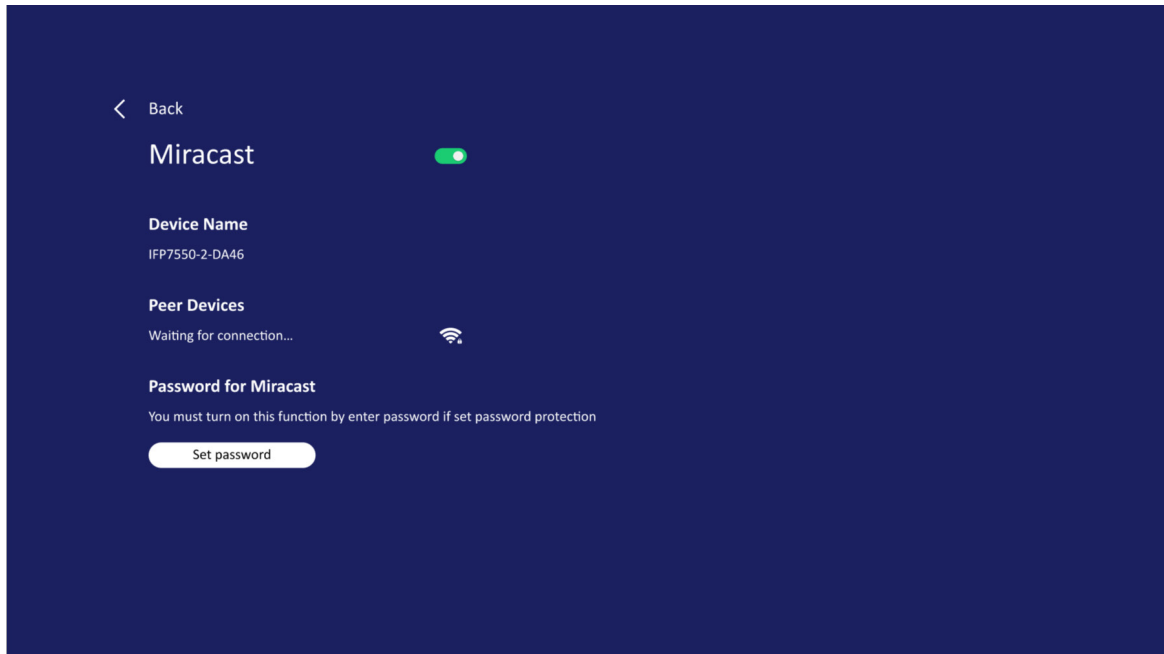
Network Information

- Ports:
 - » TCP Port 443 (HTTPS): bidirectional
- Whitelist Domains:
 - » *.myviewboard.com
 - » *.myviewboard.cloud
 - » *.viewsonic.cloud
 - » cloud.viewsonic.com
 - » *firebaseio.com
 - » *amazonaws.com

Miracast

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).



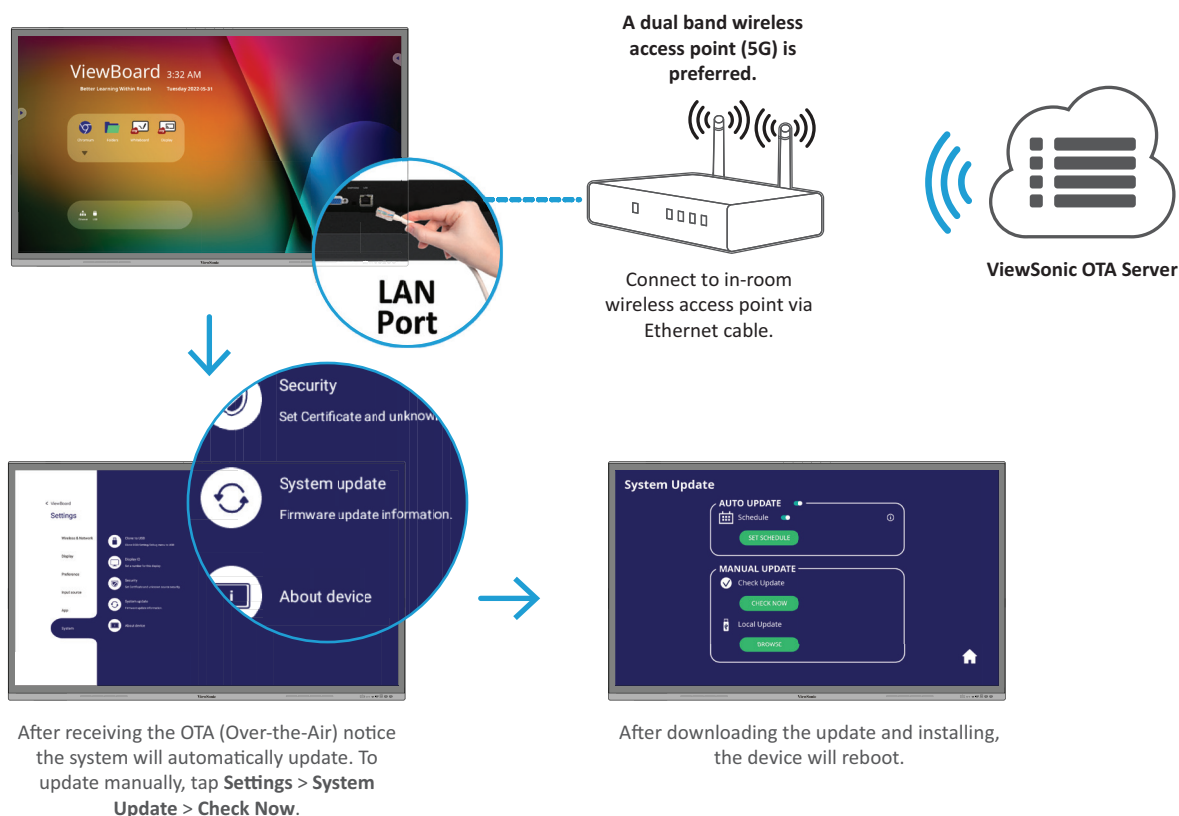
Network Information

- 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)

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



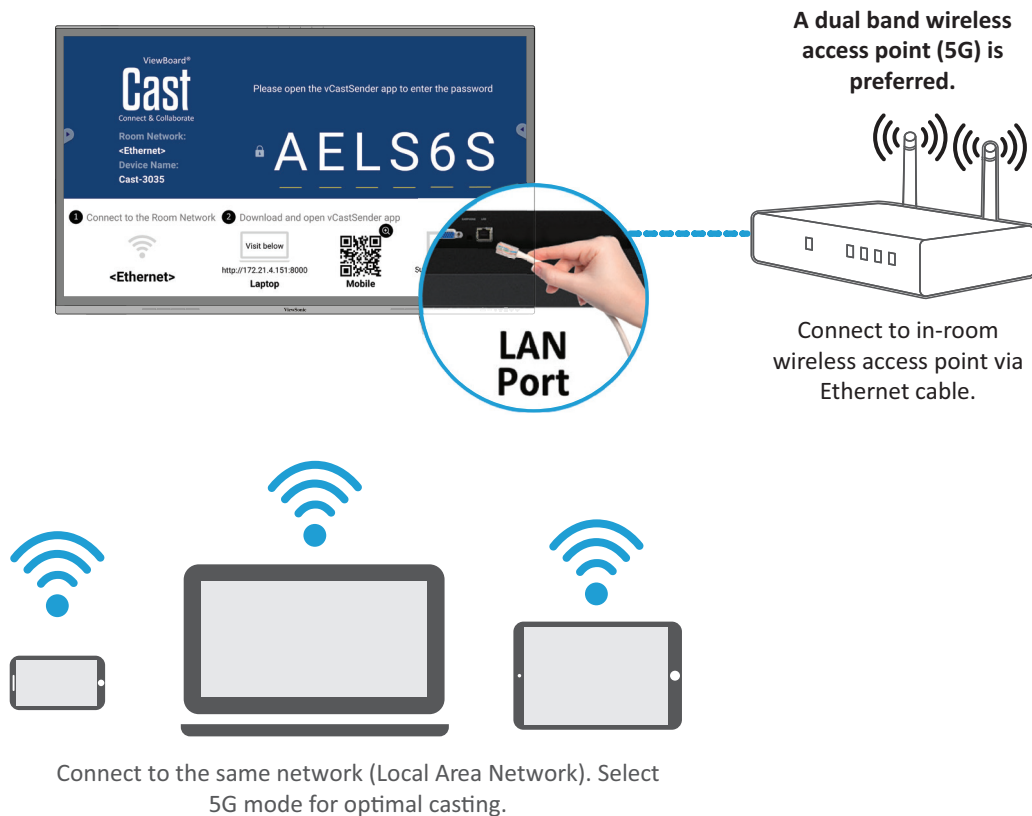
Network Information

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

vCast & vCastSender

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

vCast



Note:

- ViewBoard Cast software, laptops, and mobile devices can connect to both the same subnet and cross subnet by entering the on-screen PIN code.
- Connected devices will show up under **Device List** on the same subnet connection.
- If the device does not show up under **Device List**, users will need to key-in the on-screen PIN code.

- 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>



ViewSonic®