ViewBoard Network Requirements

Contents

Introduction

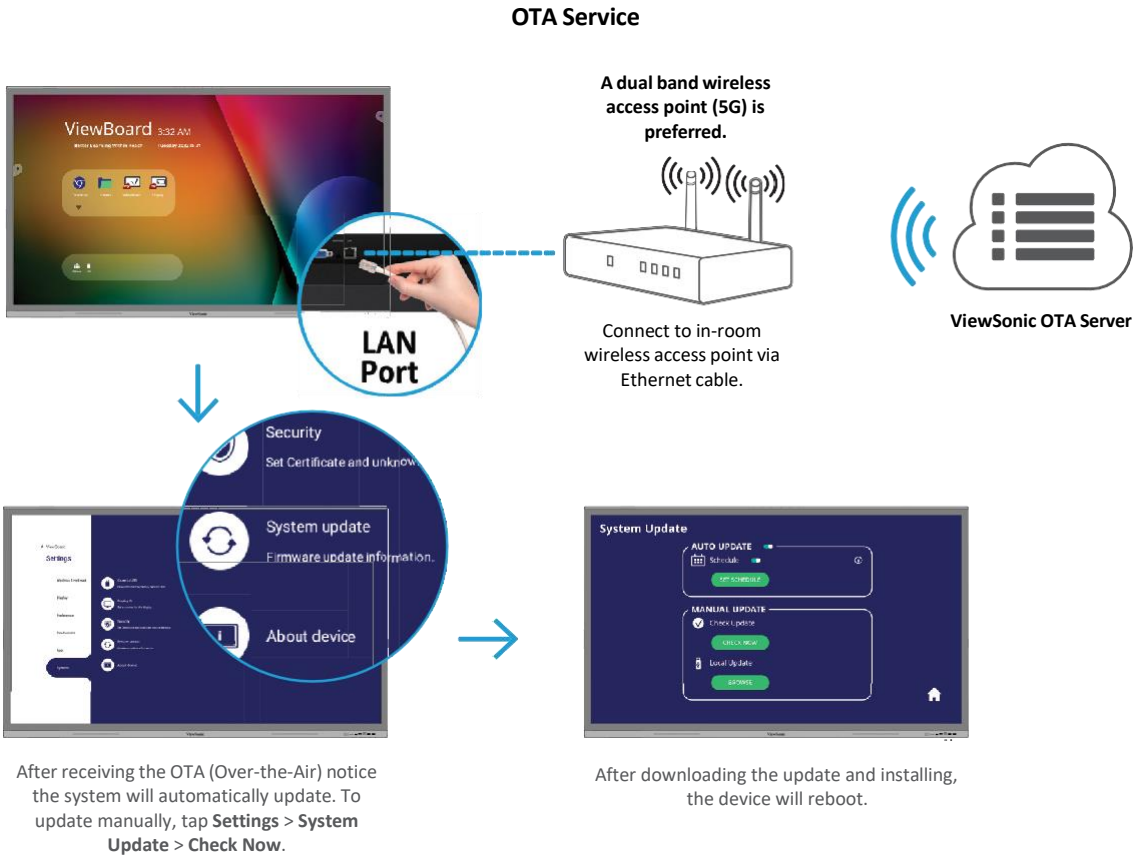
These notes will introduce the network requirements for ViewBoard®'s pre-loaded software and help IT administrators setup ViewBoard® products in their IT infrastructure.

NOTE:

- Ensure the wireless infrastructure supports broadcast service and is turned on.
- To get a stable transmission, it is strongly recommended to have the ViewBoard® connected via an Ethernet cable, and client devices on a 5 GHz Wi-Fi band.

Over-The-Air (OTA) Service

A ViewBoard® will automatically search for firmware updates whenever connected to the Internet.



After receiving the OTA (Over-the-Air) notice the system will automatically update. To update manually, tap **Settings** > **System Update** > **Check Now**.

After downloading the update and installing, the device will reboot.

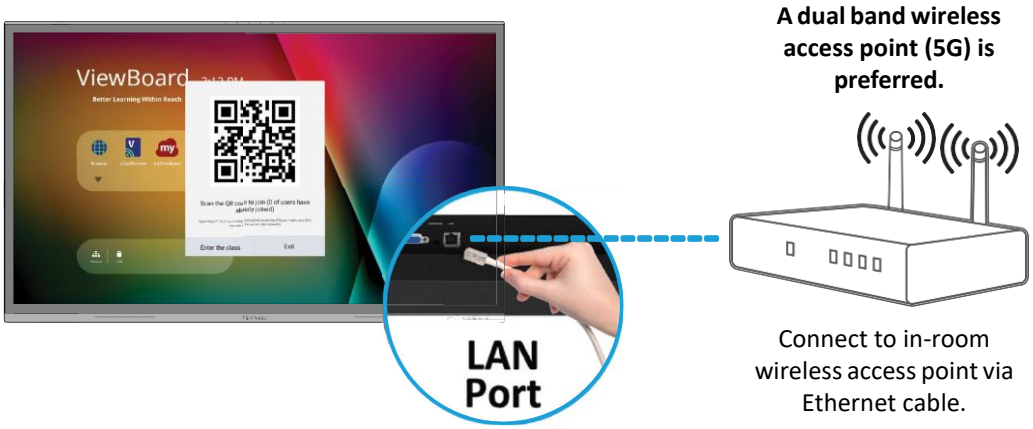
Network Information

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

Air Class

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

Air Class



A dual band wireless access point (5G) is preferred.

Connect to in-room wireless access point via Ethernet cable.

Android phone/tablet: scan QR Code to enter Air Class.

Other devices: Connect to the same network (Local Area Network) and enter the on-screen URL http://(enter your URL here):8080 to enter Air Class.

Network Information

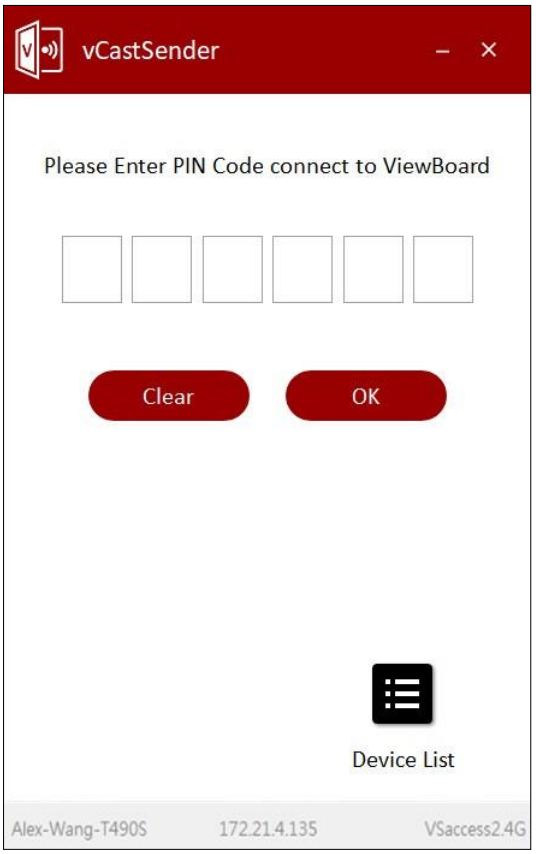
- PC (Windows/Mac/Chromebook) and tablet/mobile (iOS/Android) devices, as well as the ViewBoard®, need to be linked to the same LAN network subnet.
- Port: TCP 8080

vCastReceiver & vCastSender Service

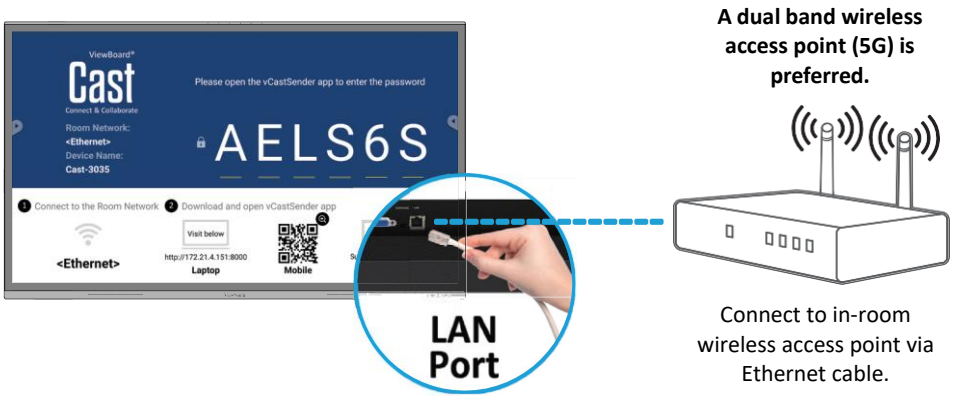
Working with ViewBoard® Cast software, the vCastReceiver app, will allow the ViewBoard® to receive vCastSender laptop screens (Windows/Mac/Chrome) and mobile (iOS/Android) users' screens, photos, videos, annotations, and camera(s).

Network Information

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



vCastReceiver



A dual band wireless access point (5G) is preferred.

Connect to in-room wireless access point via Ethernet cable.

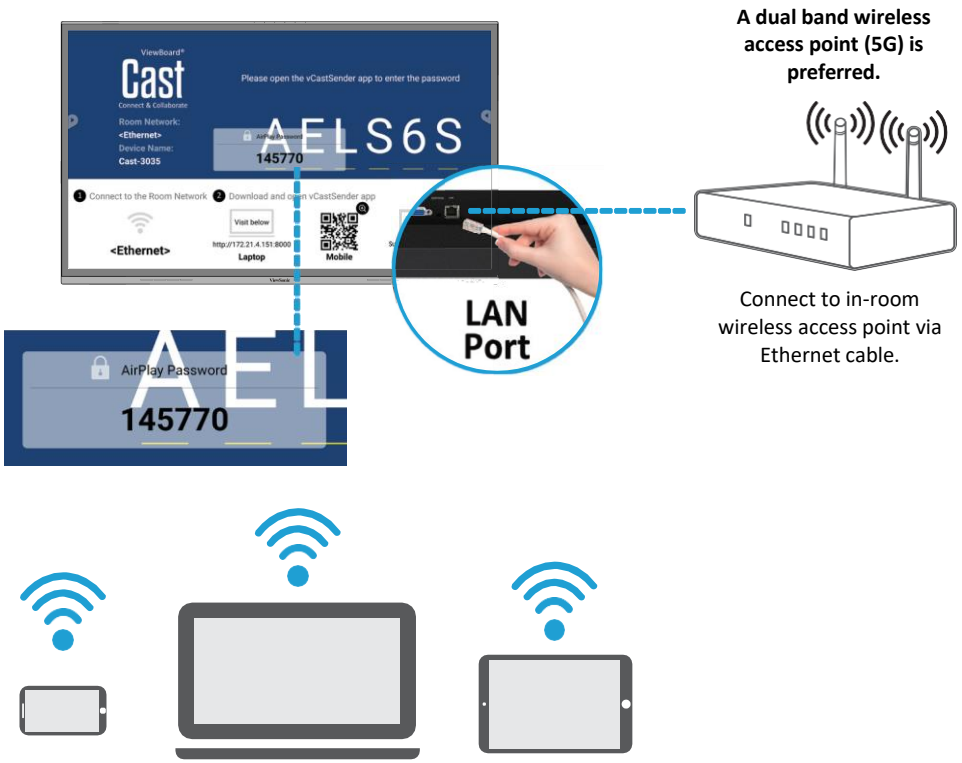
Connect to the same network (Local Area Network). Select 5G mode for optimal casting.

- Ports:
  - TCP 56789, 25123, 8121 & 8000 (Controlling message port & client device audio transfer)
  - TCP 8600 (BYOM)
  - TCP53000 (Request share screen)
  - TCP52020 (Reverse control)
  - TCP52025 (Reverse control for ViewBoard Cast Button)
  - TCP52030 (Status sync)
  - 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: TCP443
  - Server FQDN Name: https://vcastupdate.viewsonic.com

AirPlay Service

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

AirPlay



Connect to the same network (Local Area Network). Select 5G mode for optimal casting.

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 an iOS device (e.g., iPhone/iPad).
  3. You should see a device prefixed with “Cast-xxxx”.
  4. If “Cast-xxxx” is showing then this confirms that the vCastReceiver is broadcasting AirPlay services.

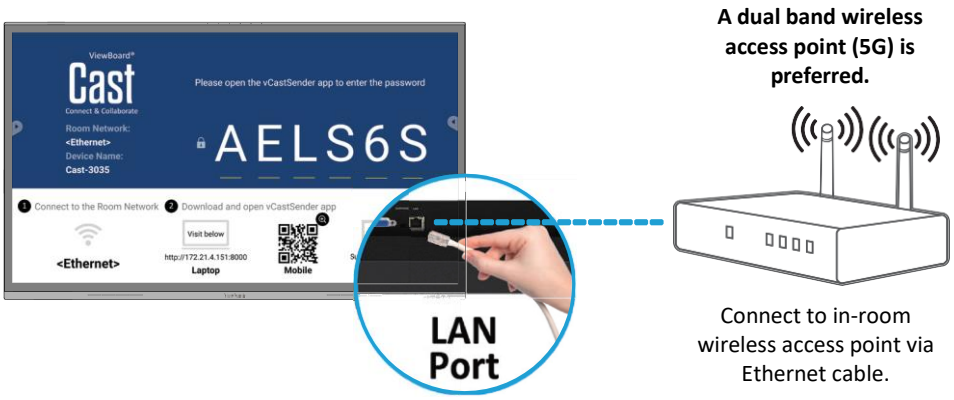
5. Click on the broadcasted “Cast-xxxx” device to mirror your iOS device to the ViewBoard®.

Chromecast Service

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

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

Chromecast



A dual band wireless access point (5G) is preferred.

Connect to in-room wireless access point via Ethernet cable.

Connect to the same network (Local Area Network). Select 5G mode for optimal casting.

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. It is recommended to use Wi-Fi: 802.11n 5GHz.

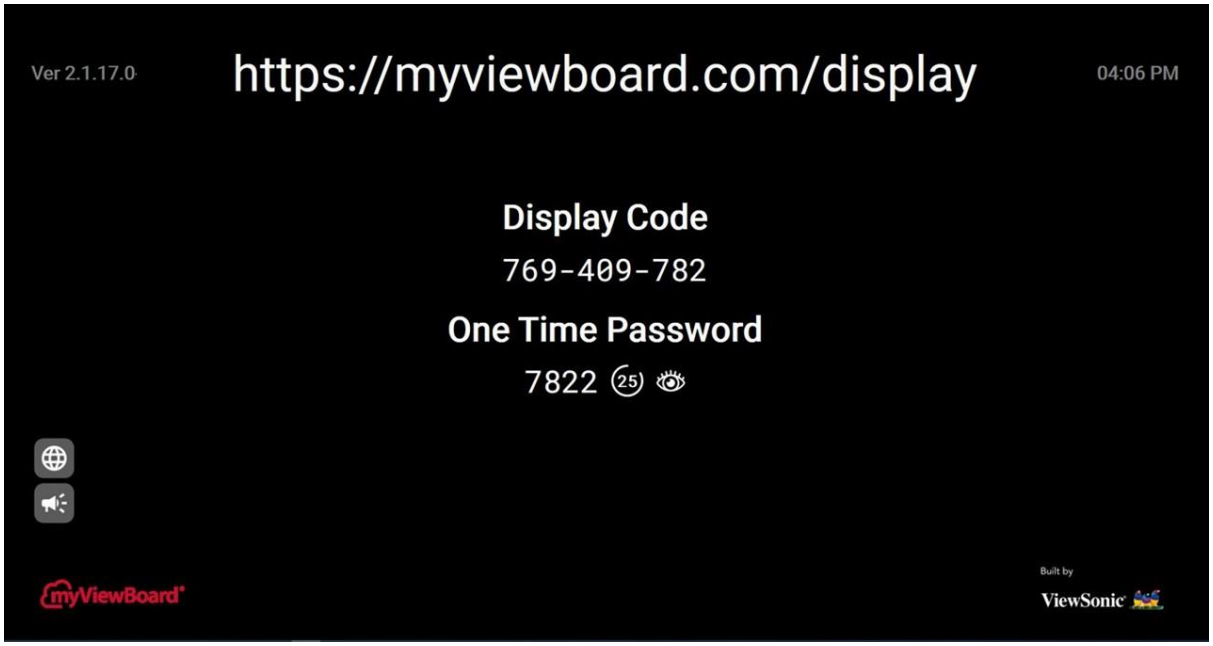
     NOTE: See a 5 GHz channel guide for a table on non-DFS channels in your country. In the USA, those channels are 36-48 and 149-165.
  3. Bandwidth: At least 2~5 Mbps per user in a typical deployment. Latency should be less than 100ms when pinging Google's public DNS server at 8.8.8.8; for HD video streaming > 5 Mbps is required.
  4. 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.

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

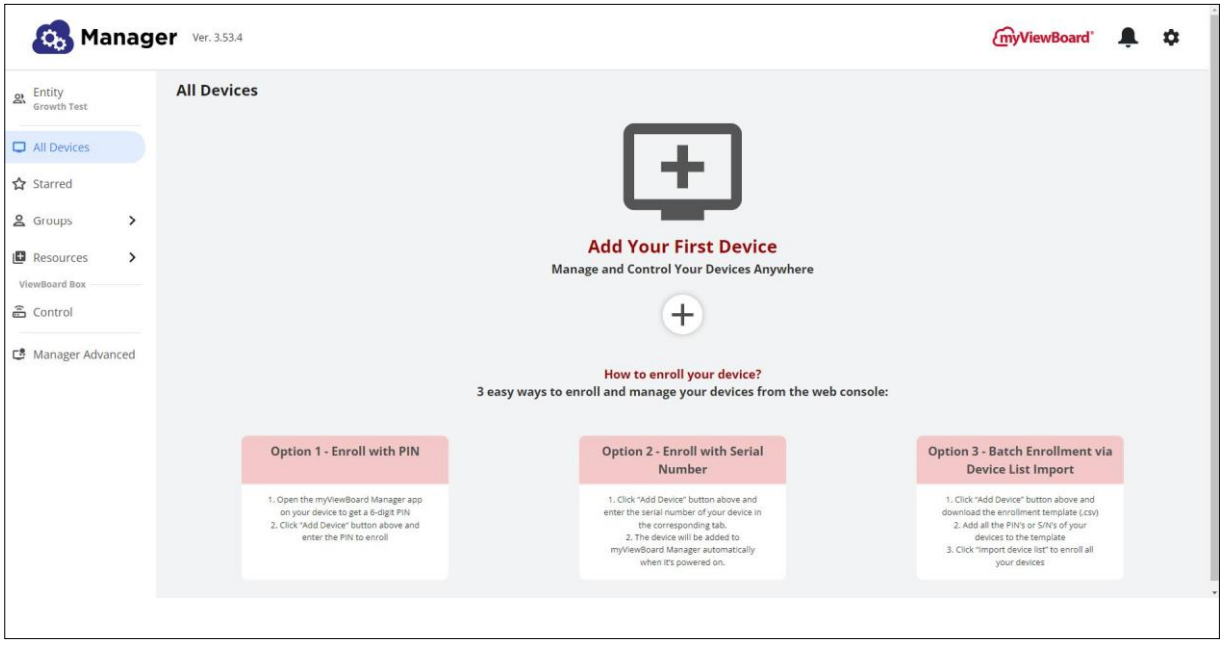
- Ports:
  - TCP Port 443 (HTTPS): outbound
  - UDP and TCP port 3478 bidirectional to the WebRTC servers
  - UDP Ports 50,000 – 65,535 (RTP/sRTP/RTCP) bidirectional to the WebRTC servers (These ports are optional; if blocked, media will be proxied using TURN on port 3478.)

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 **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://wiki.myviewboard.com/MyViewBoard_Manager.



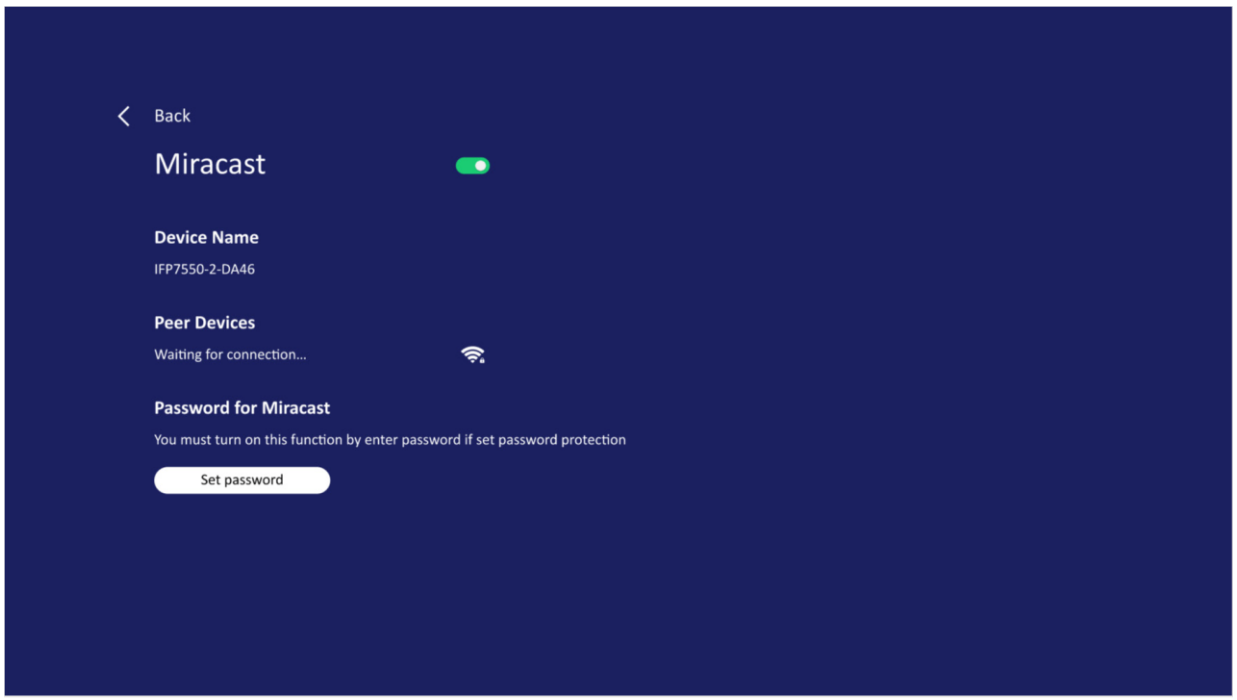
Network Information

- Ports:
  - TCP Port 443 (HTTPS): bidirectional
  - Whitelist “myviewboard.com” URL

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.


ViewSonic®