# Christie Brio Frequently Asked Questions

**What is Christie Brio?**

Christie® Brio is a network-enabled collaboration and presentation solution that allows multiple users to quickly share, edit and annotate multimedia content from their personal computing devices on meeting room displays. Content can also be shared between meeting rooms for multisite collaboration.

There are three models in the Christie Brio family. Christie Brio Team and Team+ are managed wirelessly. Users connect either directly to them or through a WLAN. Christie Brio Enterprise is connected via Ethernet cable to the LAN.

**How do I share content with Christie Brio?**

Christie Brio can receive up to five content sources in one of three ways:

1. 1080p 60Hz sources via DVI-D connectors on the Christie Brio unit
2. 1080p 30 fps sources via Ethernet over Cat 5 cables
3. 1080p 30 fps sources via wireless Ethernet

Options for connection depend on the Christie Brio model.

| Connection options | Team | Team+ | Enterprise |
|---|---|---|---|
| Integrated wireless | X | X | |
| Physical video inputs | | 2 DVI-D | 2 DVI-D |
| Analog audio inputs | | 2 | 2 |
| Physical video outputs | 2 DisplayPort | 2 DisplayPort | 2 DisplayPort |
| External dimensions | 8 x 1.9 x 8.9" | 17.4 x 1.74 x 9.5" | 17.4 x 1.74 x 9.5" |

**Is Christie Brio HDCP compliant?**

Yes, Christie Brio will support HDCP content on its DVI inputs as long as the display devices connected to the unit are also HDCP compliant. When connected in a multisite meeting, the display devices connected to the remote Christie Brio should also be HDCP compliant.

**How do I connect wirelessly with Christie Brio?**

Providing the most flexibility of any collaboration system, you can connect to Christie Brio through the local area network (LAN), through a wireless local area network (WLAN) or directly to an integrated wireless access point (WAP). Any content on a source device may be shown on-screen in a meeting.

Specific configurations depend on the Christie® Brio model and your own personal device. There is a content sharing solution for each device platform and operating system to support live content editing and to provide a full, live desktop capture:

- Windows 7 and Windows 8 use MS Network Projector. **Note:** MS Network Projector does not wirelessly transmit audio.[1] To share audio and 30 fps video, we recommend installing the Christie Brio Screen Projector application.
- Apple OSX and iOS[2] use AirPlay. Christie Brio's AirPlay interface provides a full desktop mirror of Apple device desktops.
- Android devices use the Christie Brio Screen Projector app which can be downloaded directly from the Christie Brio unit or from the Google Play app store.

**Where do I find MS Network Projector Windows devices?**

For Windows 7 devices, click the start button and type "network projector" into the search bar. Select the option for connecting to a network projector which will appear at the top of the search results panel. A pop-up box will open with the option to search for projectors. Following the search, choose Christie the Brio unit you want to connect to from the device list and select "Connect".

The first time a Windows 8 device connects to Christie Brio, the user will need to activate MS Network Projector through the device's control panel. In the control panel menu, select "Activate windows features". In the features list, check the box beside "Connect to a network projector". Select the function page and type "network projector." Select "Connect to a network projector". A pop-up box will open with the option to search for projectors. Following the search, choose the Christie Brio unit you want to connect to from the device list and select "Connect".

**Where do I find AirPlay for Apple devices?**

To open Apple AirPlay®, swipe up from the bottom of the screen to reveal the control center overlay. If the Christie Brio unit and your device are on the same network, you will see the AirPlay icon. Tap the AirPlay icon to display a list of available Christie Brio units. Select the applicable Christie Brio unit, then toggle the ON/OFF slider to ON.

**Where do I find the Christie Brio Screen Projector app for Android devices?**

Christie Brio Screen Projector may be found on the Google Play app store or it can be downloaded directly from the Christie Brio unit. To download from the unit, enter **http://<*assigned Brio IP*>/connect** in the browser address bar of the Android device. Follow the on-screen instructions for Android.

**Can I share content using the Christie Brio output as an extended desktop?**

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[1] Brio Screen Projector is provided as alternative application for full 30 fps video with audio. Windows 8.1 and later devices will eventually connect with Miracast.
[2] Devices running OS X Mountain Lion with 2nd Intel Core processors or later.

You can use Christie® Brio as an extended desktop only when directly connected to the Christie Brio unit via the DVI inputs. Most wireless protocols don't allow content sharing in this mode.

**How do I manage audio?**

Christie Brio has two analog audio input jacks on the back panel which correspond to the DVI inputs. Depending on the protocol, audio may also be streamed wirelessly through a Christie Brio unit. All audio is mixed to a single output for wiring to the meeting room sound system. This same audio source is streamed to remote sites when Christie Brio units are joined in a multisite meeting. Volume for the various audio inputs is managed individually by each source.

**How do I manage the arrangement of sources on the meeting room displays?**

By default, Christie Brio automatically scales and positions sources in windows on the meeting room displays. With one meeting room display connected, a single source covers the entire display. Multiple sources are scaled to quarter sections of the display and arranged in a quad split fashion. With two meeting room displays connected, Christie Brio shows the last connected display in a full-screen layout on the primary display and all other sources are displayed in quarter sections on the secondary screen.

After sources are connected, they may be moved in four different ways, depending on user preference. When sources are shown on a touch-enabled flat panel, sources can be moved by:

- Drag and drop from one location to another directly on the panel
- A long touch on any window to open controls specifically for that window
- Opening a main menu on the touch panel for full source control

For control of sources away from the touch panel, Christie Brio also offers a Meeting Manager that can be accessed from any web browser by entering the IP address of the Christie Brio unit in the address bar.

**How do I use Christie Brio's whiteboard and annotation tools?**

Christie Brio's whiteboard and annotation are toggled on or off through the Meeting Manager. With this feature on, the primary output – if connected to a multi-touch display – can be used as a whiteboard. The whiteboard is always shown full-screen. The whiteboard has the option to load background images for annotation or, when a transparent background is shown, annotate over the top of any live content shared on the primary screen. Images may be loaded or captured and saved to a removable USB drive for later reference.

**Can Christie Brio be controlled through a third-party system?**

Yes, since the Christie Brio Meeting Manager is a basic web page, control systems that support this functionality can be programmed to support Christie Brio. Christie Brio also has a published API for support of third-party integration.

**How can I make sure that only the people present in the meeting room can connect to a Christie Brio session?**

You can start a secure session with Christie® Brio with the touch of a button in the on-screen menu. The automatically generated password shown on the meeting room display is then required to sign in to the session. The Meeting Manager also offers the option to require a preview of connected sources before they can be displayed. This allows the user to determine whether a connected source should be shown or dropped. Additional password options are available through the Meeting Manager.

**Can I password protect a Christie Brio session?**

To prevent unwanted source sharing or access to the Meeting Manager, Christie Brio offers various password settings through the Meeting Manager. It is also possible to quickly start a secure session by touching an icon on the touch panel menu to toggle on and off a session that is protected by a randomly generated password shown on the output display.

**How secure is MS Network Projector?**

For Microsoft OS devices, any information sent over the connection between the computer and a Christie Brio unit is protected by Remote Desktop Protocol (RDP) encryption, the same encryption method that Microsoft Windows Server Terminal Services uses.

**Can I connect an IP camera to Christie Brio?**

Cameras may be connected to Christie Brio either as a DVI source or through the integrated camera on a personal device. Christie Brio does not select individual network streams such as an IP camera from a network connection.

**How do I connect Christie Brio Enterprise in a remote meeting?**

Using the Meeting Manager, multiple Christie Brio Enterprise units may be invited to participate in a multi-location meeting. A Christie Brio Enterprise unit is required for a participant to connect to the session. Each participant who accepts the invitation to connect via Christie Brio will be connected to the host. In situations where one Christie Brio unit has two displays connected and another Christie Brio unit has one, only the content of the primary display will be shared. Christie Brio uses a standard h.264 video stream to communicate between units. Christie Brio Enterprise units which did not receive an initial invitation to the meeting may send a request to the host, asking to join the meeting. The host can accept the request through the Meeting Manager.

**What is a multisite meeting host?**

The first Christie Brio Enterprise unit to invite other units to join a meeting will be designated as the host unit. The other Christie Brio units that accept the invitation will see and hear the same content that is presented on the host's primary display. This keeps the meeting organized. The sharing of content can be easily transferred by the host from one Christie® Brio unit to another during the meeting. Host control is not required to contribute to or locally save whiteboard sessions.

**How does Christie Brio Enterprise functionality change when joined in a remote meeting?**

All Christie Brio units joined in a meeting will see the same content to keep meeting management simple. By default, they will see the outputs of the host. In addition to content, the whiteboard functionality is shared between Christie Brio units, allowing any participant connected by a Christie Brio unit to contribute to the collaborative drawing  and annotating, and to save the drawing locally.

**Is there a limit to the number of participants in a multisite meeting?**

The number of Christie Brio Enterprise units that may be joined in a multi-location meeting depends on the available network bandwidth at the host site.

**Is there a delay in response time between Christie Brio Enterprise units in a multisite meeting?**

Christie Brio is intended to be used in real-time. On an efficient network, there is no perceptible delay in response between Christie Brio units.

**What is the bandwidth requirement for a multisite meeting?**

Christie Brio supports variable rate streaming and provides administrative controls for adjusting signal compression and bandwidth usage. The bandwidth requirement varies based upon the number of Christie Brio units joined in a meeting. In general, a Christie Brio unit will send 1 Mbit per output of data via the network. In the case where two Christie Brio units are joined in meeting where the host has two displays connected, Christie Brio will send 2 Mbits of data. In the case where four Christie Brio units are joined in a meeting where the host has two displays connected, Christie Brio will send 6 Mbits of data.

**What network security is there between Brio units?**

Christie Brio uses an encrypted h.264 video stream to communicate between units to prevent viewing of the stream by individuals who should not have access to the Christie Brio collaboration session. The encryption is based on RTSP and, when initiated by the meeting host, requires all meeting participants to enter a host-defined password that is cleared at the end of each meeting. In a secure meeting, the host's Meeting Manager is also password protected.

For more information, please visit www.christiebrio.com