



AIRCast and AIRCast Studio

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Section 1: AIRCast

Introduction

AIRCast is the ultra-low latency, live streaming platform built into OnAIR and powers all aspects of the OnAIR virtual experience, including:

- Sessions and Breakout Rooms
- Poster Presentations
- One-to-One video meetings in Live Support, Meeting Hub and Exhibitions
- Exhibitor Presentations
- Networking Functions and Group Conversations
- Live Host Broadcasts

AIRCast utilizes several streaming technologies and is fully managed within OnAIR. Once selected, the amount of time streamed to each viewer is billed to you at the end of each month's service.

By default, you will be charged for usage based on AIRCast Day Passes, which are charged at a low, per attendee, per day cost. A Day Pass provides unlimited use of streaming services and are an extremely cost-effective way of budgeting your streaming costs.

Please refer to the **AIRCast Cost FAQ** found in the White Paper library for details on how AIRCast Day passes are managed.

AIRCast is an optional service and can be used in conjunction with existing technology such as YouTube, Vimeo, Zoom, and Brightcove.

Features of AIRCast

- **Integrated in OnAIR** – Eliminates the need to license external services such as Zoom and create external connections in EventsAir.
- **Ultra-Low Latency Design** – AIRCast Studio provides ultra-low latency, typically less than a 3 second lag from initial broadcast to viewed in OnAIR.
- **Redundant Streaming** – As an added security measure, all session content is streamed via two backup services. These backup streams are available to attendees in session who may have technical issues with the primary stream.
- **Auto Session Recording** – All sessions are automatically recorded. **Please note** that you will still need to download your recordings and upload to a video storage service such as YouTube or Vimeo within 70 hours of the recording as they are automatically deleted after 70 hours.

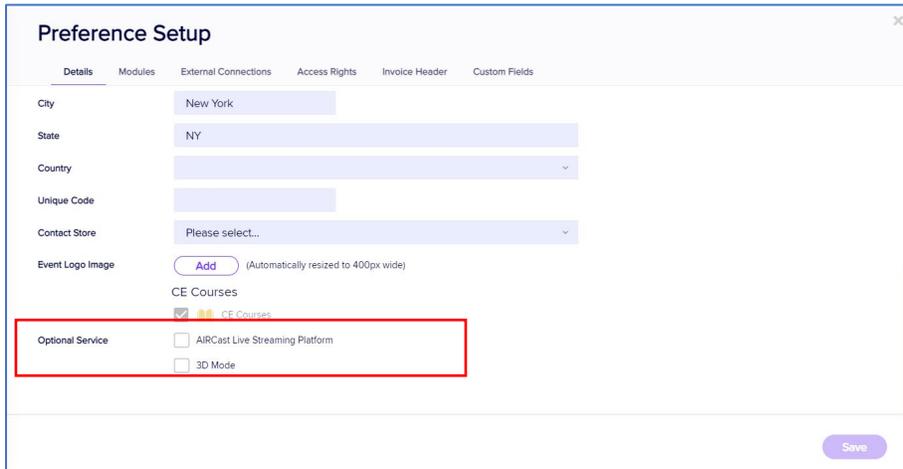
The Advantages of AIRCast

AIRCast offers several advantages to users of OnAIR as compared to using other streaming options:

- **Integrated in OnAIR** – simply select AIRCast in EventsAir's Event Preferences page for your event. No external licenses are required, and once selected, AIRCast Studio is available for all OnAIR functionality (a YouTube or Vimeo account is still needed to house your recorded videos).
- **No Attendee Limitations** – unlike Zoom, you can have as many participants as you require; AIRCast simply scales up as needed, and this applies to unlimited concurrent session as well.
- **Automatic Monthly Billing** – once selected, you are ready to use OnAIR for all your virtual content. You will be billed at the end of each month **ONLY** for actual use, based on the number of users accessing your event.
- **Eliminates the Need for Other Streaming Services** – If you use AIRCast, you do not need to license other streaming platforms such as Zoom, Twilio, BrightCove or Vonage.

Enabling AIRCast in EventsAir

AIRCast is enabled in EventsAir on an event-by-event basis. Simply open your Event Preferences panel in EventsAir setup and select the AIRCast Live Streaming Platform.

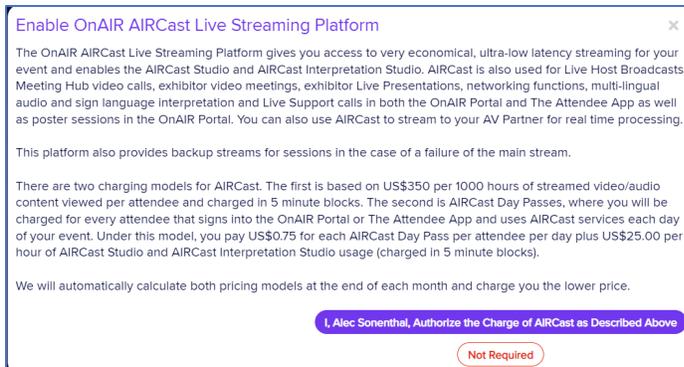


The screenshot shows the 'Preference Setup' dialog box with the following fields and options:

- City: New York
- State: NY
- Country: [Dropdown]
- Unique Code: [Text Field]
- Contact Store: Please select... [Dropdown]
- Event Logo Image: Add (Automatically resized to 400px wide)
- CE Courses: [List of courses]
- Optional Service:
 - AIRCast Live Streaming Platform
 - 3D Mode

A 'Save' button is located at the bottom right of the dialog.

Once you agree to the purchase of AIRCast, the service is enabled across all your OnAIR functionality.



Enable OnAIR AIRCast Live Streaming Platform

The OnAIR AIRCast Live Streaming Platform gives you access to very economical, ultra-low latency streaming for your event and enables the AIRCast Studio and AIRCast Interpretation Studio. AIRCast is also used for Live Host Broadcasts, Meeting Hub video calls, exhibitor video meetings, exhibitor Live Presentations, networking functions, multi-lingual audio and sign language interpretation and Live Support calls in both the OnAIR Portal and The Attendee App as well as poster sessions in the OnAIR Portal. You can also use AIRCast to stream to your AV Partner for real time processing.

This platform also provides backup streams for sessions in the case of a failure of the main stream.

There are two charging models for AIRCast. The first is based on US\$350 per 1000 hours of streamed video/audio content viewed per attendee and charged in 5 minute blocks. The second is AIRCast Day Passes, where you will be charged for every attendee that signs into the OnAIR Portal or The Attendee App and uses AIRCast services each day of your event. Under this model, you pay US\$0.75 for each AIRCast Day Pass per attendee per day plus US\$25.00 per hour of AIRCast Studio and AIRCast Interpretation Studio usage (charged in 5 minute blocks).

We will automatically calculate both pricing models at the end of each month and charge you the lower price.

[I, Alec Sonenthal, Authorize the Charge of AIRCast as Described Above](#)

[Not Required](#)

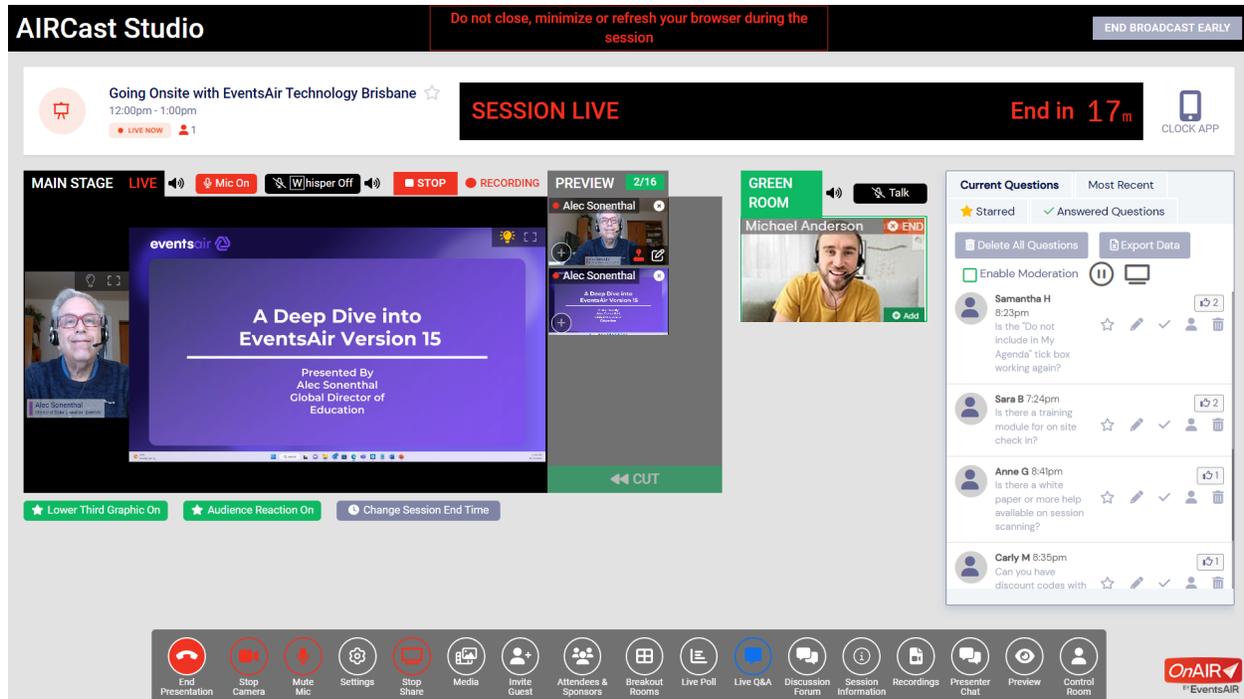
AIRCast Options when Creating Sessions

Although AIRCast is used for several live streaming options in OnAIR, a primary use is to deliver session content in near real time. AIRCast can be used in three different ways within your OnAIR sessions:

- **AIRCast Studio (Standard and Lite)** – this flexible and powerful presentation environment lets you coordinate, manage and stream content from your presenters, guests, and attendees directly to your virtual attendees. There are many features and capabilities to AIRCast Studio that are covered later in this white paper.
- **External RTMP Live Feed** – this functionality lets external venues or production companies stream their professionally mixed and produced content through AIRCast and directly into OnAIR.
- **Webinar/Stream Zoom Meeting Through AIRCast** – this option lets you use Zoom Meetings as the source of your presentation, and you stream your session from Zoom through AIRCast. This streaming option lets you use the least expensive Zoom Meetings license and avoids the need to obtain Zoom Webinar licenses that rise in cost with the number of participants included in the license.

Section 2: AIRCast Studio

Introducing AIRCast Studio



AIRCast Studio is the session production environment where you, your team and your presenters operate in to manage all content and presentations broadcast to your virtual attendees.

There are six primary areas visible in OnAIR Studio:

- **Information Header** – contains session information, session status and the external clock option.
- **Main Stage** – the location of up to nine live streams of presenters, screen shares and media viewable by your virtual attendees
- **Preview Pane** – this is where the host can organize presenters and media and decide both the layout in the Main Stage as well as the location of each stream in the Main Stage display
- **Green Room** – The waiting area for presenters. The Host can bring presenters from the Green Room onto the Main Stage.

- **Tools Options Pane** – on the far right you will see different functions such as Media, Recordings, Live Polling, Live Q&A and more.
- **Tools Menu** – along the bottom is the Tools menu that provides Hosts, Presenters, and non-presenting support staff access to different options for the current presentation. The Tools Menu will change based on the type of session role each person has when they are in the session.

Host Hardware Requirements for AIRCast Studio

Virtual Attendees

Virtual attendees participate in AIRCast Studio sessions through OnAIR, and as such do not have any special hardware requirements.

AIRCast Studio Presenters

Presenters in AIRCast Studio require a personal computer with adequate performance to manage their presentations and video feeds.

The following are our recommended hardware requirements for presenting in an AIRCast Studio session:

- Wired internet connection
- Personal computer with a minimum i5 or equivalent processor

It is also strongly recommended that your computer is allocating all computing resources to the operation of AIRCast Studio and that you shut down all other programs.

AIRCast Studio Hosts

If you are a host managing an AIRCast Studio session, your computer hardware is working with up to 16 streams of content that can include video streams, media such as video, images and audio, and your own connections to AIRCast Studio if you are also presenting in the session.

The following are our recommended hardware requirements for hosting an AIRCast Studio session:

- Wired Internet Connection
- Personal computer with an Intel i7 or equivalent processor
- 16 Gb of Ram
- Adequate hard drive space for any media you are sharing in AIRCast Studio

It is also strongly recommended that your computer is allocating all computing resources to the operation of AIRCast Studio and that you shut down all other programs.

Important Definitions for AIRCast Studio

AIRCast Studio is a comprehensive production environment for your sessions, and you will need to be familiar with these terms and definitions:

- **Breakout Rooms** – these are small rooms (up to 20 attendees) where attendees can join to engage in conversation and screen sharing. Breakout rooms can be included in any session that has “Enable Breakout Rooms” as part of the AIRCast Session setup.
- **Broadcast** – this is the output of the Main Stage and sent to all attendees who are viewing the session. Test Broadcasts can be conducted prior to one minute before the session starts. The Broadcast can be ended early and restarted within the session times.
- **Clock App** – the session countdown timer can be opened on an external device, such as a smart phone or tablet. This is useful if the presenter or support staff do not have multiple screens and need to be aware of session length and times.
- **Control Room** – this is a behind the scenes management area where staff can preview all sessions, send out alerts, communicate with presenters and display a live host or MC feed directly to all or selected participants.
- **Discussion Forum** – an information text chat area used by attendees and presenters prior to the start of a session or poster session.
- **Host** – One or more persons must be assigned the Session Role of Host, who are able to manage all aspects of AIRCast Studio. Only one Host at a time can be running an AIRCast Session, but additional hosts can replace the current host whenever the currently active host needs to step away or be assisted in cases of technical difficulty. Hosts are also able to present as needed.

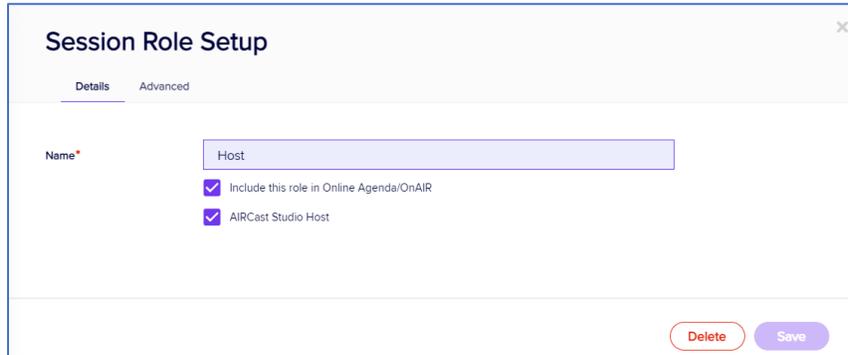
Hosts can be assigned via a session role or via the global host assignment option found in the Sessions tab of the OnAIR Portal configuration.

- **Invited Guest** – A Host in AIRCast Studio can send an invitation to an external guest presenter, even if they do not have a registration or login to OnAIR. This invitation provides a link to the invited guest who, upon clicking on the link, is brought directly into the AIRCast Studio Green Room (See Green Room for additional information).
- **Layout Options** – part of the preview pane displays a drop down of different Main Stage layouts. These layouts will display media, shared screens and presents in a variety of layouts that can quickly be changed as needed.
- **Live Poll** – this function displays one or more questions where attendees can choose one or multiple answers. Live poll results can be shared with the attendees by the presenter. The results can also be shared to the main stage by the Host.
- **Live Q&A** – this option displays the Live Q&A panel, displaying questions posed by attendees. The Presenter or Support Staff can respond to questions verbally or in writing, and questions can be ranked, moderated, saved, exported, or deleted as needed.
- **Media** – AIRCast Studio can display video files and images as part of the Main Stage presentation. These are brought into the Media Pane and added to the Preview/Main Stage by the Host.

- **Main Stage** – this is the area in AIRCast Studio where the host organizes and presents all content to your virtual attendees. The Main Stage can hold up to 16 active streams of content, which include presentations and media such as videos or audio tracks. The Host can organize the different streams of presenters and media into different layouts and actively change how this combination of presenters and media can be displayed.
- **Non-Presenting Support Staff** – additional team members can be brought into AIRCast Studio in a supporting role, such as a Live Q&A moderator, manage Live Polling or check-in with presenters in the Green Room prior to being brought onto the Main Stage (See Main Stage for additional information).
- **Presenter** – Presenters can be assigned to AIRCast Studio as a Session Role or in the Attendee Record using the Presentations module to assign their presentation to a specific session. This is the current scenario used in OnAIR to assign presenters to sessions.
- **Presenter Chat** – an informal text chat window used by all presenters in the same session.
- **Preview Pane** – this is where the host can organize presenters and media and decide both the layout in the Main Stage as well as the location of each stream in the Main Stage display.
- **Share Screen** -Presenters or Hosts can opt to share their screen and bring onto the Main Stage. It is important to note that presenters can show only one stream at a time, so their video and any shared screens will be alternated between the two.

Understanding Session Roles in AIRCast Studio

There are different session roles specific to AIRCast Studio. When you are creating Session Roles in Presentation Setup, you will see two options that can be selected:

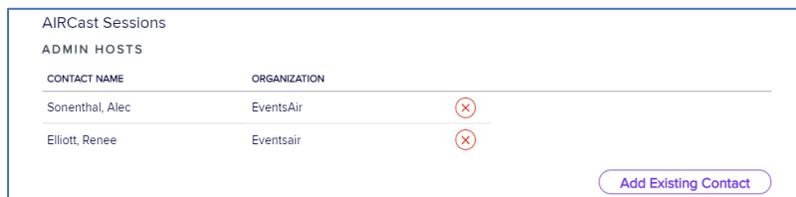


The screenshot shows a 'Session Role Setup' dialog box with a 'Details' tab selected. The 'Name' field contains the text 'Host'. Below the field, there are two checked checkboxes: 'Include this role in Online Agenda/OnAIR' and 'AIRCast Studio Host'. At the bottom right, there are 'Delete' and 'Save' buttons.

- **Include this role in Online Agenda/OnAIR** – you would check this option for presenters and for hosts if they are also presenting. Their contact photo is also included in the session description.
- **AIRCast Studio Host** – select this option for persons who are assigned the Host role for a specific session. Remember, only an AIRCast Studio Host has access to the full range of functionality, including being able to invite external guests or attendees to the Main Stage and creating Breakout Rooms. All sessions must have at least one Host assigned to the session.

An Alternate Way to Assign AIRCast Studio Hosts

You can also assign hosts globally for all sessions by entering their email address(s) in the OnAIR Portal Configuration, in the Session Settings.



The screenshot shows a table titled 'AIRCast Sessions ADMIN HOSTS'. The table has two columns: 'CONTACT NAME' and 'ORGANIZATION'. There are two rows of data. The first row is 'Sonthal, Alec' from 'EventsAir'. The second row is 'Elliott, Renee' from 'Eventsair'. To the right of each row, there is a red 'x' icon. At the bottom right of the table, there is a button labeled 'Add Existing Contact'.

CONTACT NAME	ORGANIZATION	
Sonthal, Alec	EventsAir	✘
Elliott, Renee	Eventsair	✘

Example Session Roles You Can Assign

It is up to you to create session roles that can be assigned for each specific session you are producing.

You will need at least one Host as well as typically at least one presenter for each session. You can consider assigning additional hosts as well as non-presenting support staff who can manage Live Q&A and Live Polling.

- **Host** – This is the required session role needed to manage the production of your session, organize the layout of presenters and media, and manage additional functionality such as inviting external guests and managing breakout rooms.

This is enabled by selecting the AIRCast Studio Host option when defining the session role in Presentation Setup or by adding the Host's email to the AIRCast Session Admin Host list.

- **Secondary or Additional Hosts** – You can assign as many hosts as you wish to AIRCast Studio; however, only one host at a time can manage the production of your session.

Secondary Hosts can step in and take control at any time, which is useful if the currently active host experiences connectivity issues. Also, Secondary hosts can assist the primary host in working with presenters, managing breakout rooms, answering Live Q&A, and overseeing Live Polls.

This is enabled by selecting the AIRCast Studio Host option when defining the session role in Presentation Setup or by adding the Host's email to the AIRCast Session Admin Host list.

- **Presenters** – Presenters are the persons assigned to a session that are presenting the session content. You can have more than one presenter for each session.

It is useful to remember that you can give a presenter designation to a host as it is quite possible that a session host would also be presenting content.

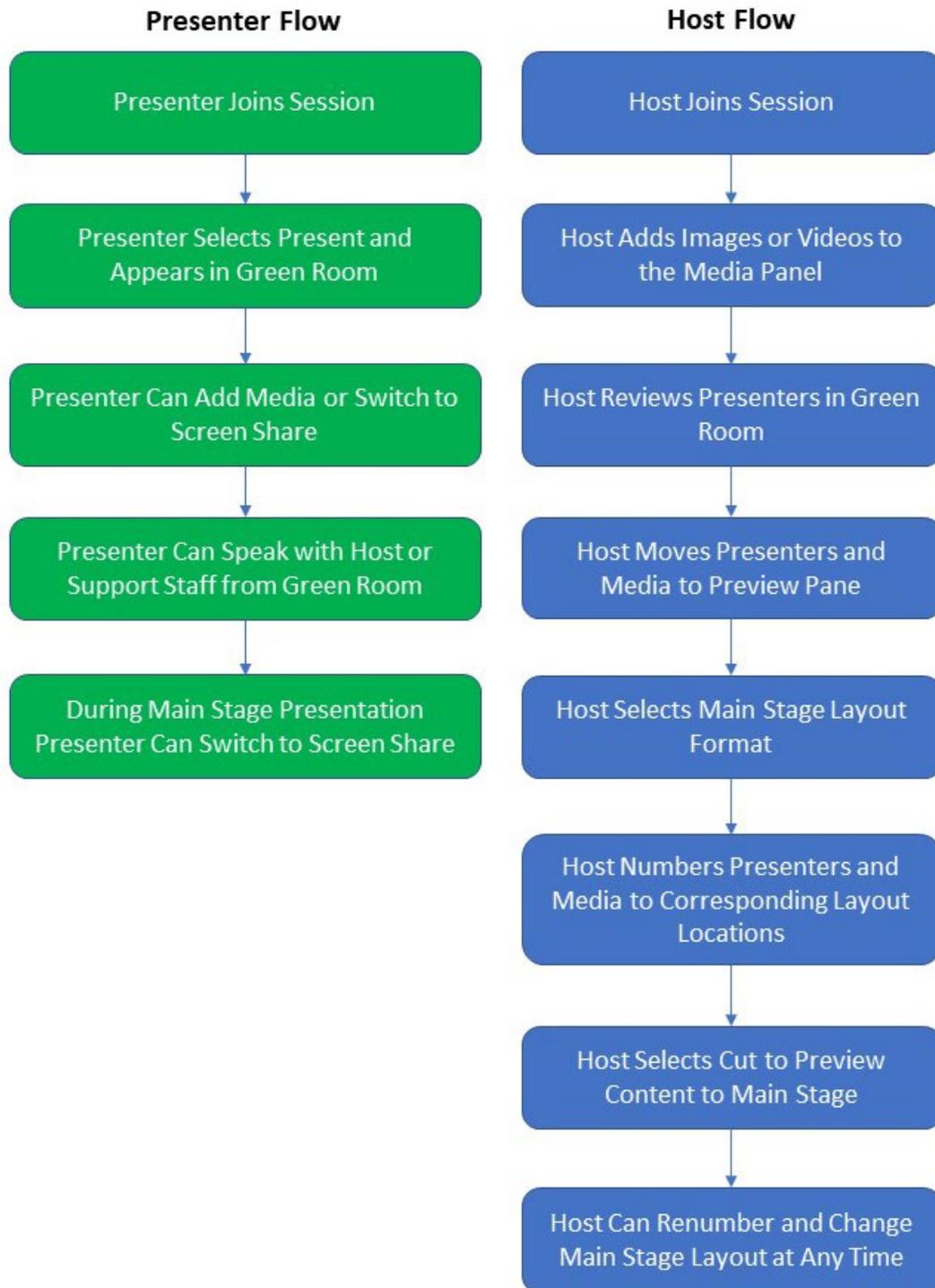
Presenters are enabled by assigning them the appropriate session role in the session setup or adding a Presentation module entry linked to an AIRCast session.

- **Non-Presenting Additional Staff** – you can name this anything you wish, such as Moderator, Staff, or any other designation you wish.

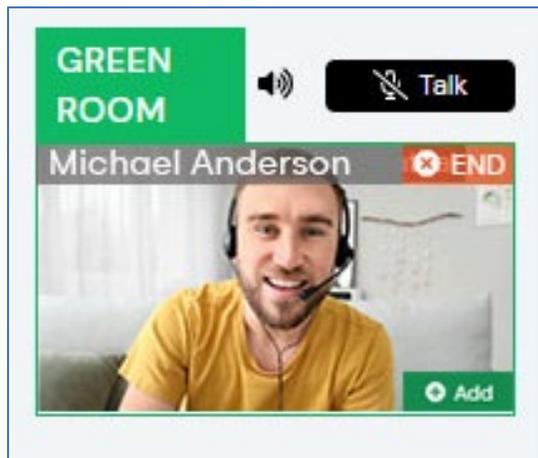
Non-Presenting Staff can help you by moderating Live Q&A, managing Live Polling, and they can also join the Green Room to assist with Speaker training and management.

When setting up this session role, DO NOT check the Include this role in Online Agenda/OnAIR box, or the AIRCast Studio Host box.

The Flow of Presentations in AIRCast Studio



Green Room



The Green Room is the Presenter waiting area, where presenters are placed when they first start their presentations

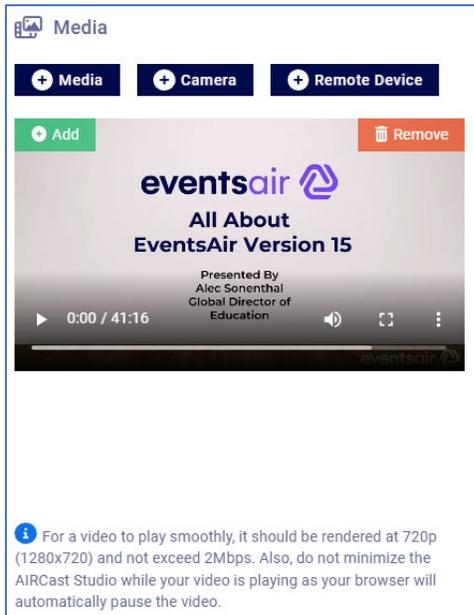
This is an important concept as you may have multiple presenters placed in the Green Room and it is up to the Host to move them onto the Main Stage.

In addition to presenters, if the host invites an external guest speaker or invites one or more attendees to present, they are also placed in the Green Room until the Host moves them on the Main Stage.

Options for the Host

- ADD will move the presenter into the Preview Pane of the Main Stage
- END will remove the presenter from the Green Room
- The audio icon will mute or unmute the presenter's audio feed
- The Talk Button will enable all hosts to speak with the selected Presenter in the Green Room

Media Panel



Selected from the AIRCast Studio menu, Media is your holding area for video files or images that you wish to include in your Main Stage Presentation.

Both Host and Presenter can add media for inclusion on the Main Stage.

What Media Can You Use?

You can use images or videos, but they **MUST be local** on your computer.

Both images and videos should be 1280 pixels wide, 720 pixels high for optimum image quality. Also, they should not exceed 2Mbps

and be encoded with H.264 to ensure smooth streaming.

For the Presenter

If a presenter adds a video or image to the Media Panel, they have the ability of switching between their video feed and their selected media.

Selecting Cut on their selected Media item will switch back to their video feed.

For the Host

The host can Stream up to two media files at a time. These Media items can be added to the Preview and managed as part of the Main Stage Presentation

Camera Option

Selecting Camera will allow you to bring in a video feed from a PTZ camera attached to AIRCast Studio. PTZ cameras are used to capture live presentations and stream them into AIRCast Studio allowing your virtual attendees to view the presentation.

Remote Device

Remote Devices are cameras, projectors, displays and audio connected to AIRCast Studio via the Remote Device Manager portal and is used to bring these sources into AIRCast Studio from remote locations. For example, your AIRCast Studio may be managed at your home office and managing a hybrid event occurring at a different location.

Managing Videos in the Media Panel

Videos can be started, paused, and stopped at any time by using the video controls on that video, as displayed in the Media Panel.

This is important as you may wish to cue a video to a specific location and then pause it in preparation for a specific part of the upcoming presentation.

When you add a video from Preview to the Main Stage, it will start playing automatically.

Main Stage

This is the area where you organize up to nine streams (presenters and media) for broadcast to your virtual audience.

All streams that you add to your Main Stage are first displayed in your Preview, where you can decide on the presentation layout to be shown in the Main Stage.

Using the Preview Pane

The Preview Panel is where your chosen streams and media are placed so you can determine your Main Stage layout and assign each preview stream to the desired layout location.

The process is quite straightforward:



1. You add in any presenters, screen shares (for Host) and media that you wish to display on the Main Stage
2. You select the Main Stage Layout from the options menu at the top.
3. Using the numbers on the layout, click on each preview item in the correct order so they correspond the Main Stage Layout you've selected
4. Select CUT to add your content to the Main Stage
5. While the current Main Stage content is proceeding, you can start building your next Cut...simply by repeating the above process
6. When you are ready to switch to your new layout, simply select Cut again to replace what is currently on the Main Stage with your new layout

Main Stage Layout Options

You have these layout choices to use for presenting your session content in the Main Stage. Layouts that have the spotlight symbol (lightbulb) can have individual video streams spotlighted, which moves them to the large position in the layout.

Spotlight Layouts



Multiple Streams Left



Multiple Streams Top



Picture in Picture



Two Shot Highlight



Three Shot Highlight

Standard Layouts



Three Shot Portrait



Two Shot Highlight



Two Shot



One Shot



Gallery View

Additional Main Stage Layout Options

Depending on your chosen layout, you can have additional options to manage the layout of your streams in the Main Stage.



Full Screen – This option, when selected, will change the associated image or video to full screen



Spotlight- In Multiple Streams Top and Left layouts, selecting the Spotlight Icon will move the associated image or video to the spotlight, or the primary image in the layout

Important Reminders when Using the Main Stage

It's quite straightforward to create different stream layouts in your Main Stage. While one is active, you can keep creating new layouts with new or existing streams in your Preview.

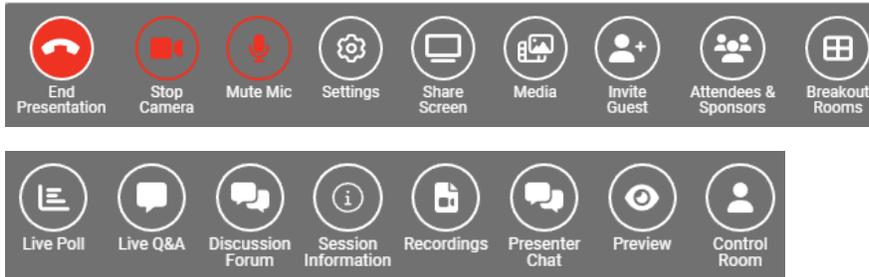
A few reminders:

- When in Preview, your presenter's audio is active and can be heard unless they are muted. You can mute the presenters, or they can mute themselves.
- You can mute the entire Main Stage presentation by muting or unmuting the Main Stage audio indicator at the top of the Main Stage. This only mutes the Main Stage sound for you, not the attendees. This is useful if you are having a conversation with the Green Room or cueing a video.
- As Host, you can stream both media and your camera at the same time. However, presenters will only have one stream for media and their camera. If they play a video, it will replace their camera.
- Screen share for the host and presenters always come into the Preview Pane and not automatically onto the Main Stage. This enables the host to ensure the screen share is formatted correctly (e.g. PowerPoint is in full screen mode).
- If you end the AIRCast Studio Broadcast early, the session itself remains open even if no AIRCast Studio broadcast is occurring
- Any Host can take over Host duties at any time by clicking the REPLACE HOST button (displayed in the top right of the screen). Any media used on AIRCast Studio must be saved locally on your computer
- If you are using video from the Media Panel, you can choose where the video begins prior to bringing it onto the Main Stage

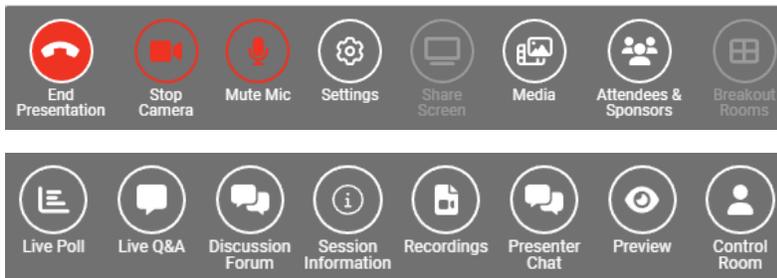
AIRCast Studio Functionality

AIRCast Studio offers a variety of tools for the host and presenter to use during presentations. The tool bar will appear differently for each type of user, offering each user type a different selection of options:

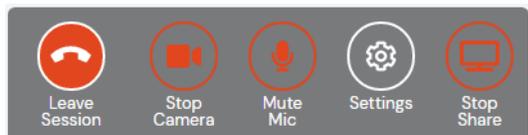
Host Tools



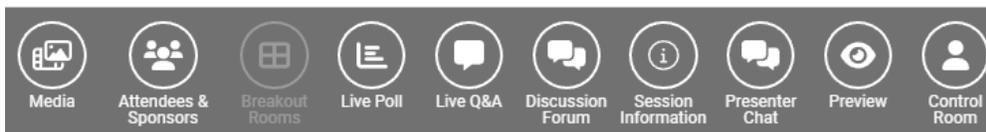
Presenter Tools



Invited Guest Tools

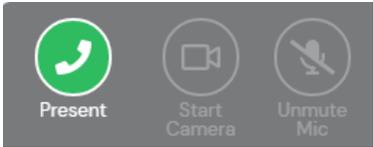
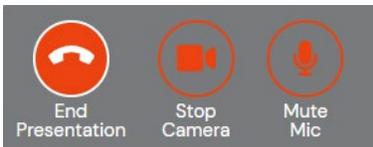
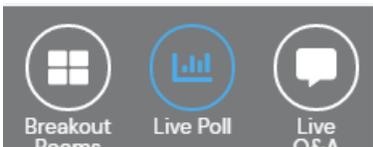


Non-Presenting Support Staff Tools



Using the AIRCast Studio Functions

AIRCast Studio functions will change colors depending on their usage.

 <p>Present Start Camera Unmute Mic</p>	<p>The Present icon is green when it is OK to proceed and start your presentation. Until your presentation is started, your Mic and Camera icons are inactive.</p>
 <p>End Presentation Stop Camera Mute Mic</p>	<p>When your presentation is active, your icons show Red and your Mic and Camera start automatically. You can stop your camera or Mic as required.</p>
 <p>Breakout Rooms Live Poll Live Q&A</p>	<p>When any of your AIRCast Studio options are selected and active, the associated panel is shown on the right and the selected icon turns blue</p>

Function Bar Options Available in AIRCast Studio

The following options are available in AIRCast Studio function, depending on what role you are logged in as (see above for specific available options).

- **Present/Stop Presentation** – select Present to join the Main Stage as a presenter. If you are host, you will be placed straight to Preview. Otherwise, you will be placed in the Green Room.
- **Start/Stop Camera** – this option will turn off your video. You can toggle this on and off as required.
- **Mute/Unmute Mic** – this option will turn off your microphone. You can toggle this on and off as required.
- **Settings** – this option lets you configure or change your video and audio options.

- **Share Screen** – This option will share your screen, where you can select what screen on your computer you wish to share to the Main Stage. If you are presenter, you can only share a screen or display your video, not at the same time.
- **Media** – this option displays the Media Panel. Here you can choose video or image files you wish to display on the Main Stage. Please note that you can only choose videos or images that are on your PC, not ones that are in the cloud or at a web address.

Also, if you are a presenter, you are allowed only one stream for camera and media, so if you bring in media you can only show your media or your camera feed, not both at the same time.

- **Invited Guest** – this option lets you bring in an invited guest to the Main Stage. (See Invited Guest for more information).
- **Attendees and Sponsors** – this option lets the host view all attendees and sponsors in the session. Additionally, attendees and sponsors can be invited join the Main Stage presentations. Attendees also have a Raise Hand option that the Host can view and turn off as needed.
- **Breakout Rooms** – The host can create Breakout Rooms that attendees can enter for group conversations and screen sharing. See Breakout Rooms for additional information.
- **Live Poll** – this option displays the Live Poll pane, where the presenter, host or non-presenting support person can define poll questions, present the poll to attendees, and share poll results.
- **Live Q&A** – this option displays the Live Q&A panel, where you or your non-presenting support team can review, manage, and respond to questions.
- **Discussion Forum** – This is the informal text chat area for attendees and presenters to have conversations before and during a session

- **Session Information** – This option displays the session details, including presenter information and session description.
- **Presenter Chat** – This is a private chat area for all hosts, presenters, and other staff in the current session.
- **Preview** – This option displays both the attendee view and a preview of the current presentation. You can also see the two back up streams. Note that the previews are only available when a Broadcast is active.
- **Control Room Chat** – This is a private chat area for all presenters and control room staff.

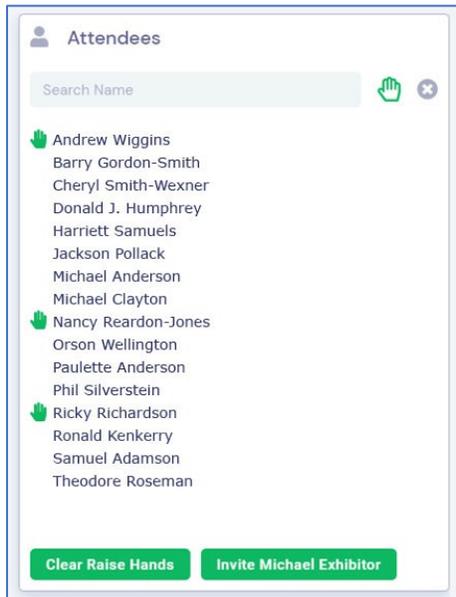
Additional Host Options in AIRCast Studio

Hosts have additional functionality available to them while producing an AIRCast Studio Session:

- **Lower Third Graphics** - You can apply a lower third caption for all presenters in AIRCast Studio. Lower Thirds Graphics are configured in the OnAIR Portal Setup, allowing you to set the background color, graphic, fonts and more.
- **Audience Reactions** - Audience Reactions is an engagement option found in AIRCast Studio. When enabled, attendees will be able to select from six different reaction icons: like, love, clap, laugh, surprise, and sadness, and will float from the bottom of the Main Stage towards the top.
- **Change Session End Time** – This option lets the host extend the end time for the session directly from within AIRCast Studio
- **Whisper Mode** – This mode, when selected, lets Hosts and Alternate Hosts speak directly to presenters that have been brought onto the Main Stage without being heard by attendees. When turned on, a “W” icon appears on each presenters preview feed and the host can choose which presenter they wish to speak with.
- **Start/Stop Recording** – This option lets the host turn on or off the recording of the session. This is useful for recording content in advance. During a scheduled sessions scheduled time, recording begins and ends automatically.

Attendee and Sponsor Options

The Attendee and Sponsor Panel provides a view of all attendees and Sponsors viewing your session. In addition to viewing a list of attendees, you can view any attendees who has raised their hand.



You can recognize attendees who have raised their hands and invite them to the Main Stage. You can invite a single attendee or select multiple attendees to invite.

You can also invite sponsors onto the Main Stage at any time.

Once invited, attendees and sponsors receive a message asking if they wish to join you on the Main Stage. If they accept, they are immediately placed in the Green Room, and their view of the session changes to the view any other presenter would see.

Once on the Main Stage, invited attendees and sponsors can speak and share their screens, like any other presenter. Once removed from the Main Stage, the attendee's and the sponsor's view reverts to their normal view.

Attendee View and Raised Hand Management

You can search for attendees by name using the search field at the top of the attendee view.

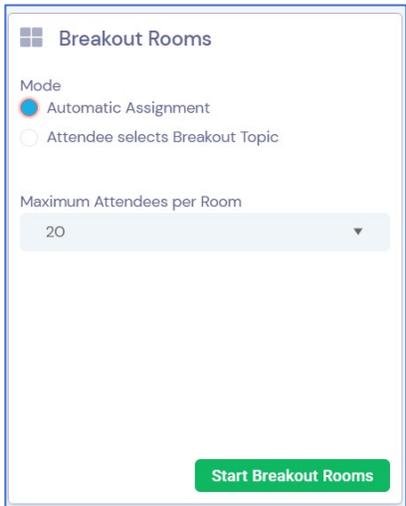
Selecting the Raised Hand icon will filter the attendee list, so you only see attendees who have raised their hands.

You can clear a raised hand for any attendee simply by clicking on their raised hand symbol. You are also able to clear all raised hands at any time by clicking on the Clear Raised Hands button at the bottom of the panel.

Breakout Rooms

Breakout Rooms are virtual rooms where attendees can move into for conversation and screen sharing. This is an extremely useful option when you want to break your attendees into different rooms based on different topics or conversations.

There are two ways breakout rooms can be created and managed:



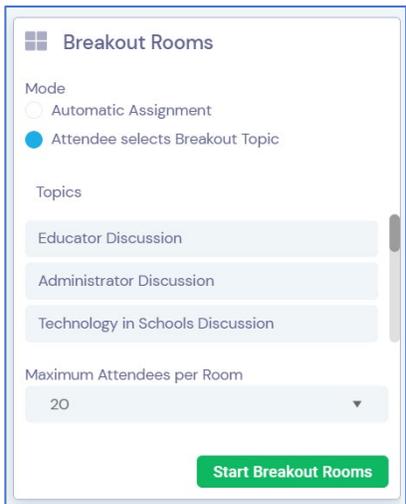
The screenshot shows the 'Breakout Rooms' configuration panel. At the top, there is a grid icon and the title 'Breakout Rooms'. Under the 'Mode' section, the 'Automatic Assignment' radio button is selected, while 'Attendee selects Breakout Topic' is unselected. Below this, there is a dropdown menu for 'Maximum Attendees per Room' set to '20'. At the bottom right, there is a green button labeled 'Start Breakout Rooms'.

Automatic Assignment

This option will have OnAIR randomly assign attendees to rooms, to the maximum number set by the Host. There is no limit to the number of rooms that can be created.

You can have up to 20 attendees per room, and AIRCast Studio will automatically create as many rooms needed so all attendees are in a room.

Presenters and Hosts can move into and out of any room as required.



The screenshot shows the 'Breakout Rooms' configuration panel. Under the 'Mode' section, the 'Attendee selects Breakout Topic' radio button is selected, while 'Automatic Assignment' is unselected. Below this, there is a 'Topics' section with a list of three topics: 'Educator Discussion', 'Administrator Discussion', and 'Technology in Schools Discussion'. Below the topics, there is a dropdown menu for 'Maximum Attendees per Room' set to '20'. At the bottom right, there is a green button labeled 'Start Breakout Rooms'.

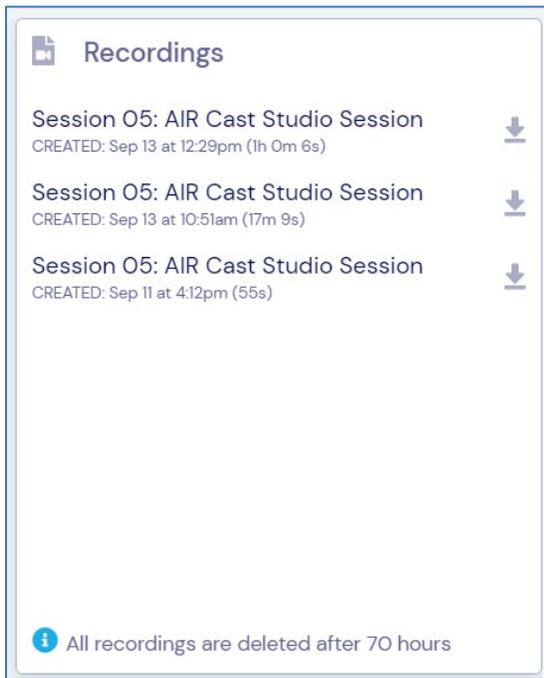
Attendee Selects Breakout Topic

This option lets the Host define up to 10 breakout room topics. Then, attendees can choose to enter the breakout room of their choice.

If the maximum number of attendees for any room is met, OnAIR will create additional breakout rooms with the same topic name.

You can have up to 20 attendees per room, and AIRCast Studio will automatically create as many rooms as required. Presenters and Hosts can move into and out of any room as required.

Recordings



All AIRCast Studio sessions are automatically recorded and are found in the Recordings Panel.

To make recordings available in either OnAIR or in any other format, you will need to first download the desired recording and then upload to either YouTube or Vimeo.

All recordings are automatically deleted by AIRCast Studio after 70 hours, so it is important to download any recordings as soon as you are able once your OnAIR event has concluded.

Recording Content Prior to the Start of Your Session

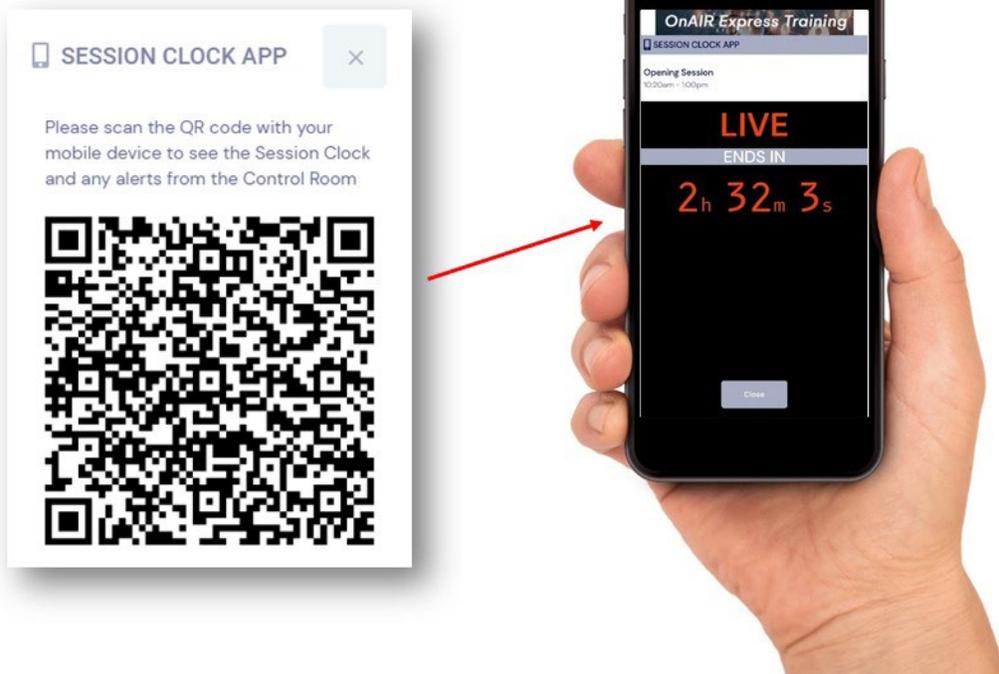
A valuable feature of Recordings is that you can recording content in AIRCast Studio prior to the start of the session. For example, you may wish to record a presentation in advance, and use that recording in your session.

You will still need to download your recording and then bring it into AIRCast Studio using the Media option.

Using the Session Clock App

The Session Clock App is a useful tool where you can scan the provided QR code on your phone or tablet and view the session timer on your external device.

This is very useful when presenters may not have multiple screens. Having the session timer displayed on a separate mobile phone or tablet can be an easy way to always keep the session timer in view.



Section 3: Stream to AV Partner

Streaming Content to Your AV Partner

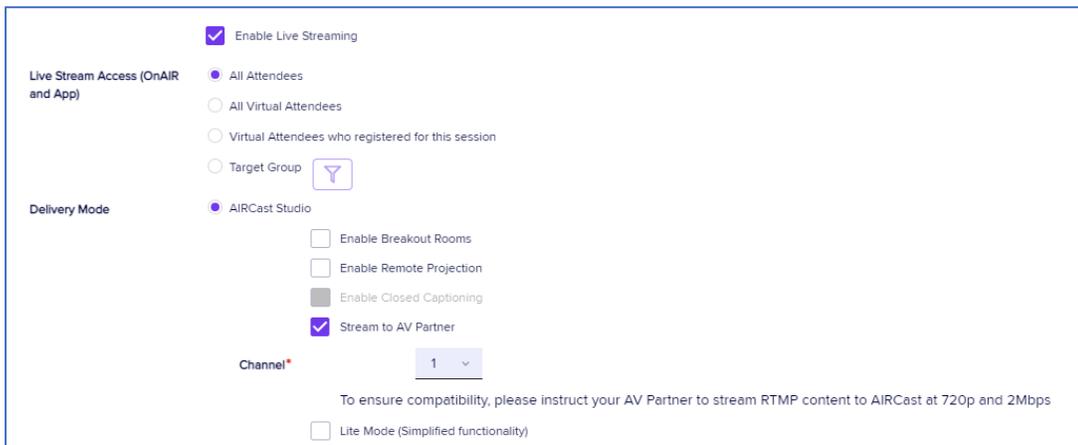
This option lets you stream up to nine streams of content to an external AV studio or partner. Sessions that use this option will show different options to hosts and presenters in AIRCast Studio, and your AV partners will have their own special view of AIRCast Studio as well.

This option is quite useful when your AV studio partners wants to manage the session with your content and mixed with professional transitions, overlays, and other professional enhancements.

Setting Up Sessions to Stream to AV Partners

When you set up your session, in OnAIR settings, you would:

1. Select AIRCast Studio as your Delivery Mode
2. Check the box for Steam to AV Partner
3. Choose a channel (helps to identify this stream and two sessions on at the same time cannot use the same channel)



The screenshot shows the OnAIR settings interface. At the top, there is a checkbox for "Enable Live Streaming" which is checked. Below this, under "Live Stream Access (OnAIR and App)", there are four radio button options: "All Attendees" (selected), "All Virtual Attendees", "Virtual Attendees who registered for this session", and "Target Group" (with a funnel icon). Under "Delivery Mode", there are five options: "AIRCast Studio" (selected), "Enable Breakout Rooms", "Enable Remote Projection", "Enable Closed Captioning", and "Stream to AV Partner" (checked). Below these is a "Channel" dropdown menu set to "1". At the bottom, there is a note: "To ensure compatibility, please instruct your AV Partner to stream RTMP content to AIRCast at 720p and 2Mbps" and a checkbox for "Lite Mode (Simplified functionality)" which is unchecked.

Once this is done, you are ready to identify your AV partners in both EventsAir and in your OnAIR Portal setup.

Setting Up Your AV Partners

Each member of your AV partner's team that will access to your streamed content will need to be set up in both EventsAir and OnAIR.

In EventsAir

Each AV partner team member will need their own contact record and registration type. This is required since they will be signing into their own AV Partner instance of AIRCast Studio.

In ONAIR Portal Settings

1. In your OnAIR Portal Settings:
2. Navigate to the Online Panel and open your OnAIR Portal settings.
3. Open then Sessions tab.
4. Search for the record of your AV Partners by selecting the Add Existing Contact in the AIRCast Sessions section.

The screenshot displays the 'AIRCast Sessions' interface with three sections: ADMIN HOSTS, CAMERA OPERATORS, and AV PARTNERS. Each section has a table with columns for CONTACT NAME and ORGANIZATION. In the ADMIN HOSTS section, there is one entry for 'Davis, Margaret' with a red 'X' icon. In the CAMERA OPERATORS section, it says 'No records available'. In the AV PARTNERS section, there is one entry for 'Brown, Barbara' with a red 'X' icon. Each section has an 'Add Existing Contact' button. The button in the AV PARTNERS section is highlighted with a red border.

ADMIN HOSTS	
CONTACT NAME	ORGANIZATION
Davis, Margaret	

[Add Existing Contact](#)

CAMERA OPERATORS	
CONTACT NAME	ORGANIZATION
No records available	

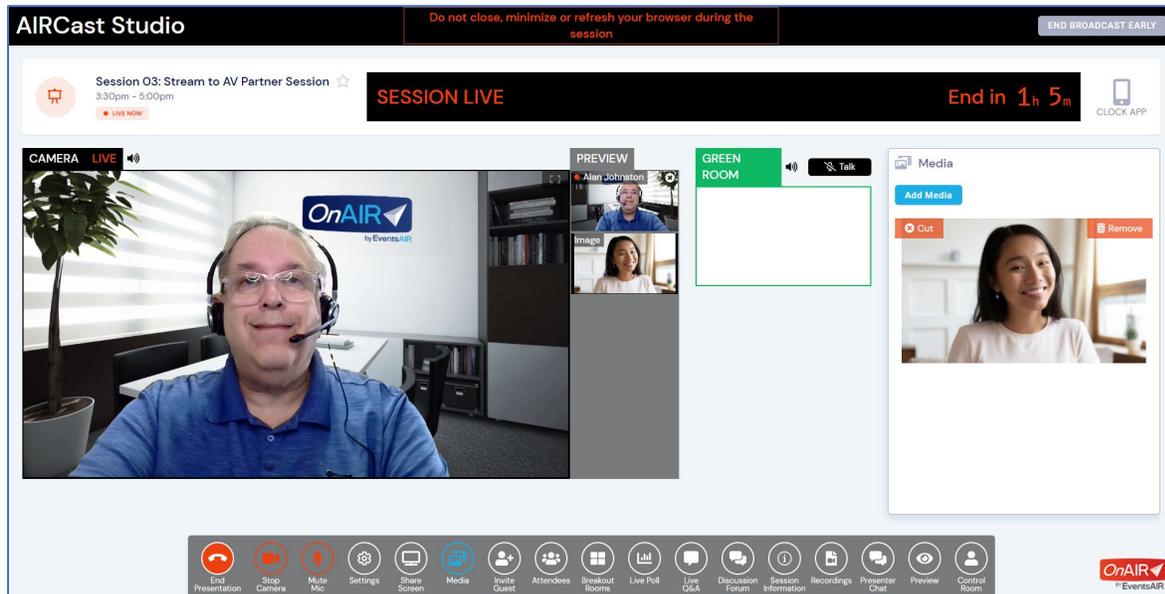
[Add Existing Contact](#)

AV PARTNERS	
CONTACT NAME	ORGANIZATION
Brown, Barbara	

[Add Existing Contact](#)

What Your Host and Presenters Will See

Whenever a session is set up for Stream to AV Partner, your host and presenters will see a different layout for AIRCast Studio.



The Main Stage is replaced by the Camera display, which shows the presentations, screen shares and media being streamed to your AV Partner during this session.

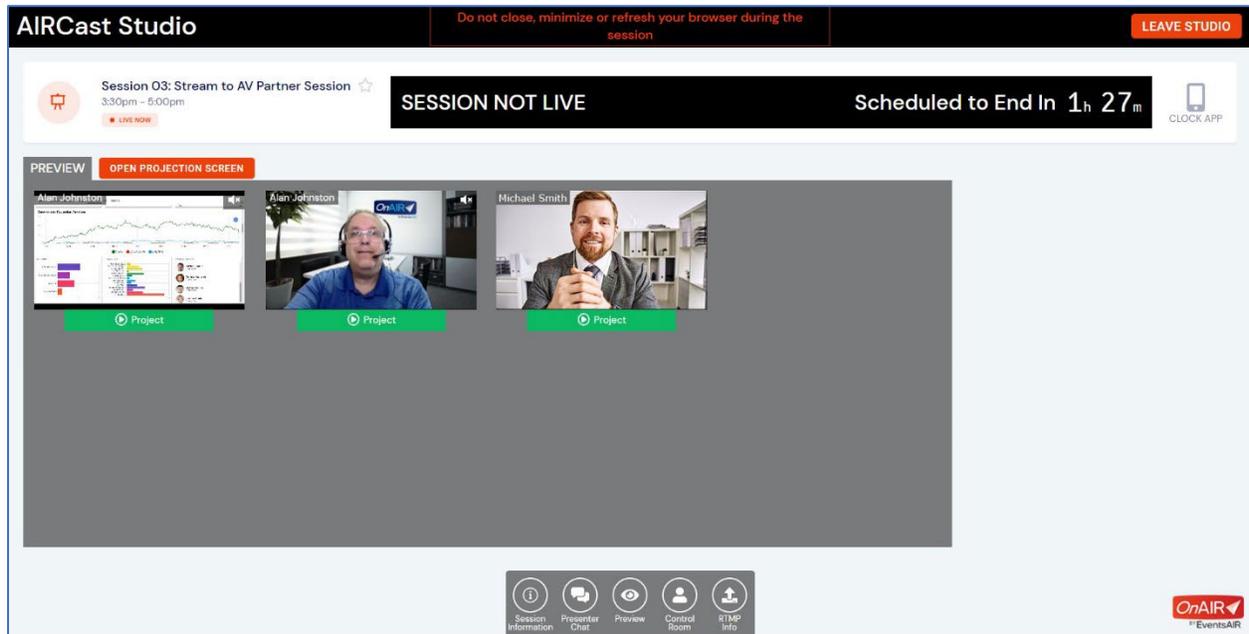
There are no Main Stage actions to be taken by the host in this view, such as managing layouts or adding/removing content. All selected presentations and media are simply displayed here, and it is your AV Partner that will use all the feeds to produce their output back into OnAIR for the attendees to view.

However, your Hosts are still able to:

- Invite Guests and Attendees to be brought into the feeds being sent to the AV Partner.
- Add media, such as videos or images.
- Can start or stop media as required.

What Your AV Partner Will See

When your AV Partner logs into OnAIR and enters the appropriate session, they will be shown a special view of AIRCast Studio.

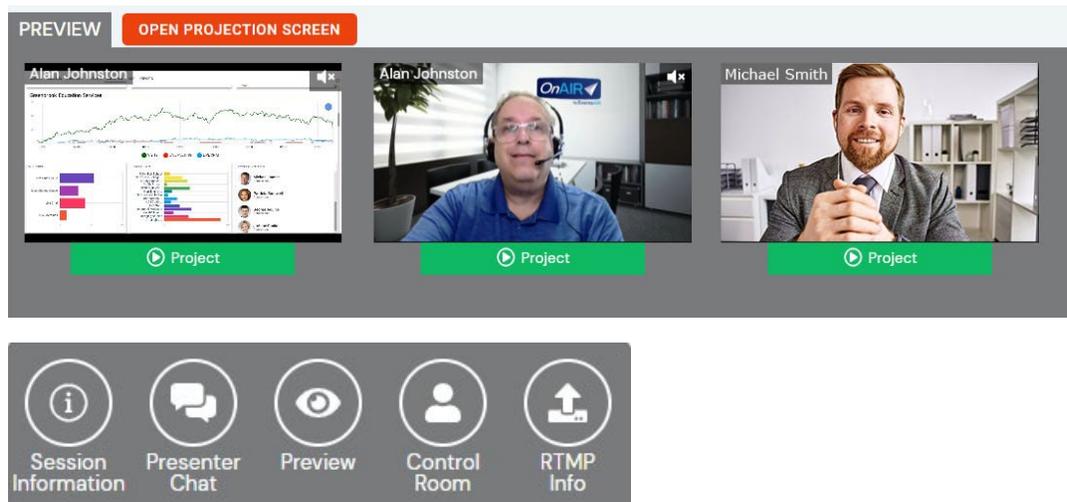


This view shows all the streams being generated for this session. Here, the AV Partner can open one or more projection screens (typically on separate laptops) and capture and mix those streams into their produced sessions.



Alternatively, the AV Partner can project just one presentation and alternate which streamed content they want to appear on their projection screen.

Options Available to the AV Partner in AIRCast Studio



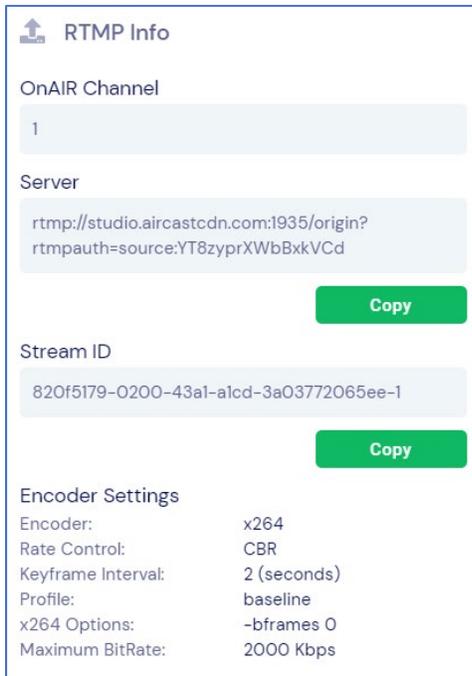
Your AV Partners can do the following:

- Open a Projection Screen on one or more displays that will be captured into whatever production environment or software they are using
- Project different streams into these Projection Screens
- Stop and Start different feeds into the same Project Screen
- View Session Information
- Take part in presenter chat
- Preview what the attendees will be seeing in OnAIR for this session
- Show a preview of the broadcast being directed into OnAIR
- Show the backup streams
- Take part in the Control Room Chat
- View RTMP Information (See next section for more information)

Connecting to the AV Partners Production Environment

Before your AV Partners can broadcast their produced content back into OnAIR, they must enter the correct RTMP settings into whatever production software they are using.

When you click on the RTMP Info Icon, the resulting display shows important details as shown here:

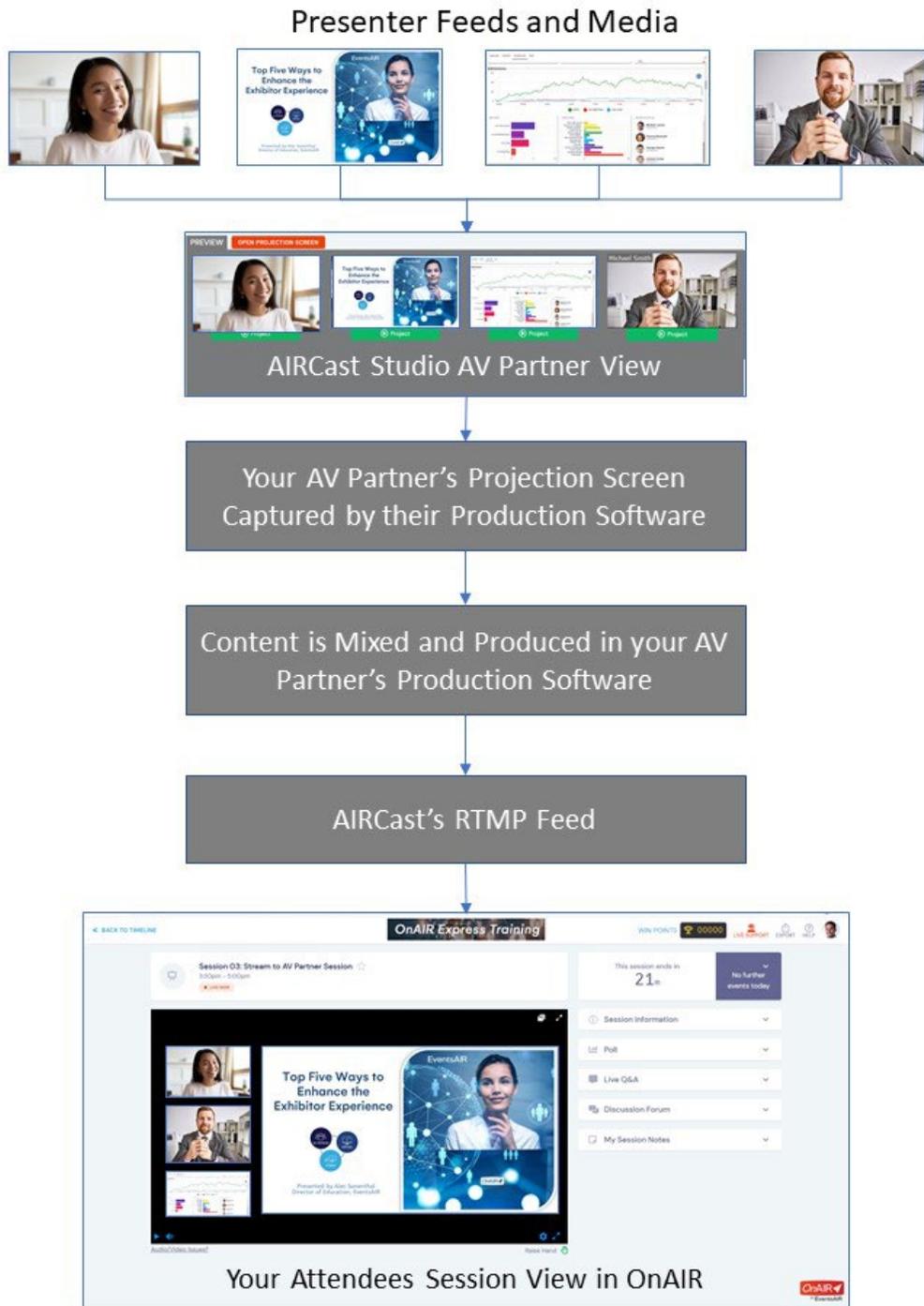


The screenshot displays the 'RTMP Info' interface. It includes the following sections:

- OnAIR Channel:** A text input field containing the value '1'.
- Server:** A text input field containing the RTMP URL: `rtmp://studio.aircastcdn.com:1935/origin?rtmpauth=source:YT8zypRXWbBxkVCd`. Below this field is a green 'Copy' button.
- Stream ID:** A text input field containing the ID: `820f5179-0200-43a1-a1cd-3a03772065ee-1`. Below this field is a green 'Copy' button.
- Encoder Settings:** A list of settings:
 - Encoder: x264
 - Rate Control: CBR
 - Keyframe Interval: 2 (seconds)
 - Profile: baseline
 - x264 Options: -bframes 0
 - Maximum BitRate: 2000 Kbps

Your AV Partner would need to copy and paste both the Server details and the Stream ID into their production software. Once done, they are now able to broadcast back into OnAIR where your virtual attendees can view the final production content from your AV Partner.

Flow Chart for Using the Stream to AV Partner Option



Section 4: External RTMP Live Feed

Streaming External Content to OnAIR via AIRCast

Depending on how your event is structured, you may need to stream externally produced content directly into OnAIR. This is a scenario that is quite common for professionally produced content using professional mixing technology or software. Your attendees and presenters will experience the normal OnAIR views, with access to Live Q&A, Live Polling, Discussion Forum and more.

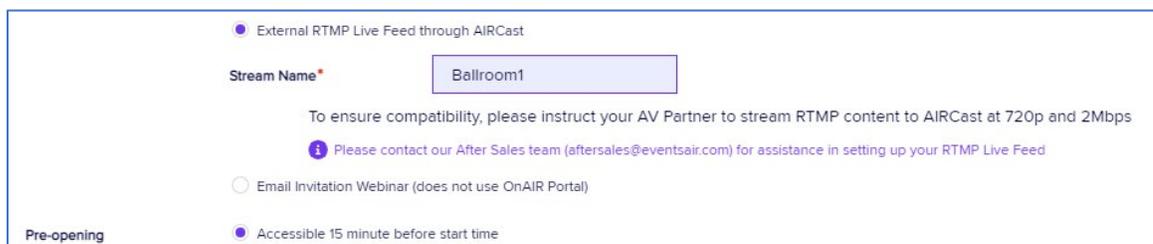
Setting Up Sessions to Accept an External Live Feed

Once you enable AIRCast for your event, there are a few settings you need to manage for each session you are setting up as an external live stream.

To enable an RTMP Live Feed, follow these steps:

1. Navigate to the OnAIR tab.
2. In Delivery Mode, select the option for External RTMP Live Feed Through AIRCast.
3. Once selected, the Stream Name field appears.
4. Enter a name for this live stream. It is important to note that you can use the same name for multiple sessions at different times, which helps your external production team identify this stream.

The stream name should be all lower-case letters, with no spaces or special characters.



The screenshot shows a configuration window for an external RTMP live feed. At the top, the option "External RTMP Live Feed through AIRCast" is selected with a radio button. Below this, there is a "Stream Name" field with a red asterisk, containing the text "Ballroom1". A note below the field states: "To ensure compatibility, please instruct your AV Partner to stream RTMP content to AIRCast at 720p and 2Mbps". Below the note is a blue information icon and the text: "Please contact our After Sales team (aftersales@eventsair.com) for assistance in setting up your RTMP Live Feed". There are two other radio button options: "Email Invitation Webinar (does not use OnAIR Portal)" and "Accessible 15 minute before start time", which is selected. At the bottom left, the text "Pre-opening" is visible.

5. Next, you will need to make note of the RTMP/RTMPS Servers and RTMP Stream ID/KEY that is automatically generated.

RTMP Server	<code>rtmp://livefeed.aircastcdn.com:1935/{ServerID}?rtmpauth={Username}:{Passw</code>	Copy URL
RTMPS Server	<code>rtmps://livefeed.aircastcdn.com:1934/{ServerID}?rtmpauth={Username}:{Passw</code>	Copy URL
RTMP Stream Id/Key	<code>3d7876d0-a5e9-42b8-925e-017863e0b9e2-ballroom1</code>	Copy ID

6. You have the choice of using RTMP or RTMPS. RTMPS encrypts your live stream, however it is not supported by all production software.
7. Prior to set up, you or your AV team must contact the EventsAir team (accountmanagement@eventsair.com) to purchase the RTMP Server for the duration of your event.
8. Once purchased, you will receive an RTMP Server URL containing a Server ID, Username and Password. This URL, along with your Stream Name (also called Stream Key or Stream ID), should be given to your AV Partner to use in their streaming software or encoding device.

You will need to provide your AV Partner with the Encoder Settings below. It is most important that they adhere to the 720p (720x1280) resolution and maximum 2Mbps Bit Rate when sending a stream to AIRCast to ensure compatibility with our ultra-low latency servers. EXCEEDING THESE SETTINGS MAY RESULT IN A FAILURE OF YOUR STREAM AT ANY POINT DURING YOUR SESSION.

ENCODER SETTINGS

IMPORTANT INFORMATION TO PASS TO YOUR AV PARTNER:

To ensure compatibility please use the following encoder settings:

- Resolution: 720p (720x1280)
- Encoder: x264
- Rate Control: CBR
- Keyframe Interval: 2 (seconds)
- Profile: baseline
- X264 Options: -bframes 0
- Maximum Bit Rate: 2Mbps

Section 5: Stream from Zoom

Streaming a Zoom Meeting through AIRCast

In addition to delivering a Zoom webinar using the Zoom Web Player in OnAIR, you can stream a Zoom Meeting through the AIRCast Live Feed.

This is a powerful alternative to using Zoom Webinars:

- Uses the familiar Zoom Meetings that your team or presenters may prefer
- No need to license Zoom Webinar Add-On packages
- Can stream to as many attendees as you wish
- Avoids the CAPTCHA and Join Audio buttons seen in a normal Zoom Webinar session

With that said, some clients may decide to use AIRCast Studio as they would gain additional functionality and experience a similar cost for AIRCast streaming.

Setting Up Sessions to Stream from Zoom

Once you enable AIRCast for your event, it takes just one basic setting to enable the Zoom Meeting Streaming option.

When you select Webinar as your Delivery Mode, you simply check the option to **Stream Zoom Meeting through AIRCast** option.

You DO need to have a basic Zoom Meetings account configured in your external connections. Once this is done, AIRCast will automatically make the correct connections to enable Live Streaming from your Zoom Meetings.

Streaming Your Zoom Meeting Through AIRCast

Once your webinar session is set up, you will need to do the following to stream your Zoom Meeting through AIRCast:

- Start Zoom in either OnAIR or directly in Zoom. You will need to be logged into Zoom or OnAIR with the appropriate email address associated with your Zoom Meetings account.
- From the Options Menu, select Live on Custom Streaming Service. Zoom will take a few seconds to establish the live stream connection to AIRCast.

Your session is now live! You can stop or re-enable the live stream from your session from the drop-down Live menu at the top of your Zoom window.

