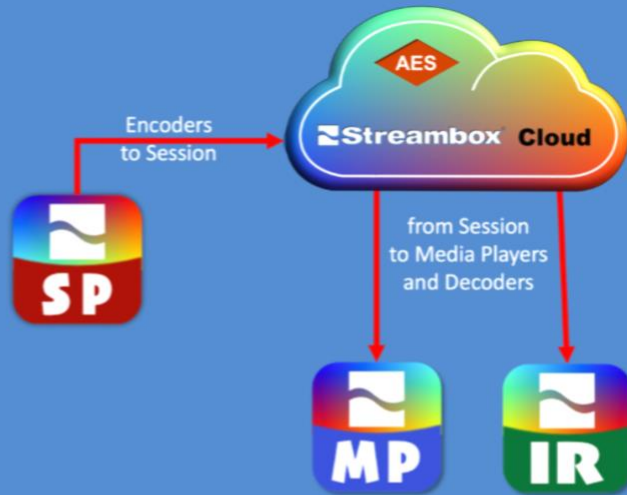


Streambox® Sessions™

Session's Dashboard

- Encoder Stats
- Session Settings
- LDMP Settings per Session
- Color Space per Session
- Connected Devices Stats (Quality flag)
- Update Expiration (On/Off/Set)
- Session Link (On-click)



Streambox® Sessions™ – Setup Guide

—One-click Collaboration—

Note: This document reflects the current feature-set which may change without notice. We will attempt to keep all users up-to-date on any such changes.

Version 3.0

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Introduction

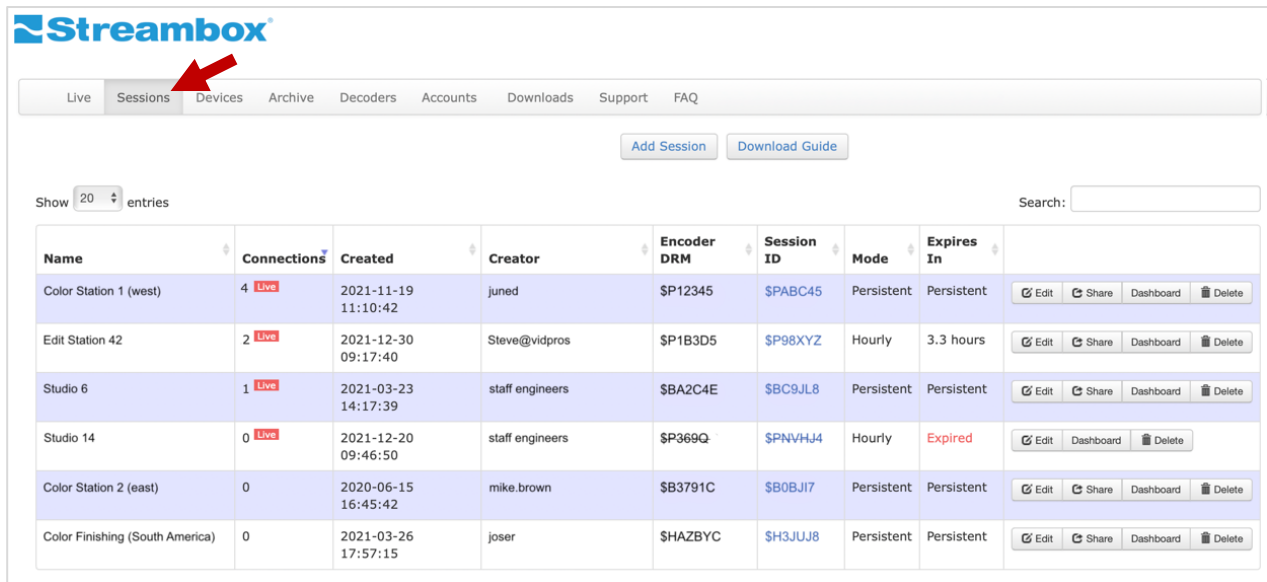
Streambox® Sessions™ simplifies video production collaboration. This is ideal for offsite producers, colorists, advisors, and other stakeholders. All you need to do is create a Session, stream to the Streambox Cloud using the Session code, and share the Session ID with collaborators. They need only click the Session's link or enter the Session ID into a Streambox Media Player (or Streambox Decoder), and within seconds they'll see the live stream, all reviewing the same high quality, color rich, video.

Just 3 Steps

Step 1 – Create a Session

The Session host logs in to their Live Server account and selects the 'Sessions' tab (see red arrow, Figure 1). This opens the Sessions page where all past and present Sessions & Connections are listed.

Streambox Cloud Sessions Web Interface



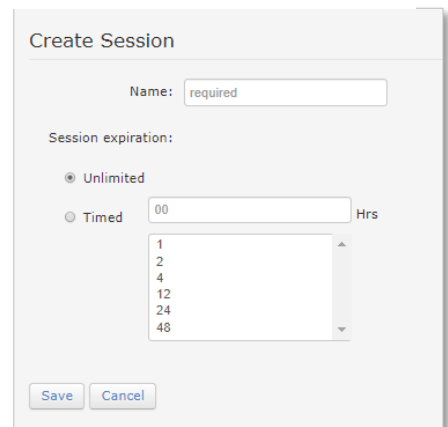
Name	Connections	Created	Creator	Encoder DRM	Session ID	Mode	Expires In	
Color Station 1 (west)	4 Live	2021-11-19 11:10:42	juned	\$P12345	\$PABC45	Persistent	Persistent	<a>Edit <a>Share <a>Dashboard <a>Delete
Edit Station 42	2 Live	2021-12-30 09:17:40	Steve@vidpros	\$P1B3D5	\$P98XYZ	Hourly	3.3 hours	<a>Edit <a>Share <a>Dashboard <a>Delete
Studio 6	1 Live	2021-03-23 14:17:39	staff engineers	\$BA2C4E	\$BC9JL8	Persistent	Persistent	<a>Edit <a>Share <a>Dashboard <a>Delete
Studio 14	0 Live	2021-12-20 09:46:50	staff engineers	\$P369Q	\$PNVHJ4	Hourly	Expired	<a>Edit <a>Dashboard <a>Delete
Color Station 2 (east)	0	2020-06-15 16:45:42	mike.brown	\$B3791C	\$B0BJI7	Persistent	Persistent	<a>Edit <a>Share <a>Dashboard <a>Delete
Color Finishing (South America)	0	2021-03-26 17:57:15	joser	\$HAZBYC	\$H3JUJ8	Persistent	Persistent	<a>Edit <a>Share <a>Dashboard <a>Delete

Figure 1. Sessions Table

The Sessions page is where the user adds a Session and reviews all present and past Sessions. Live Sessions are designated with the red Live beacon next to the number of Media Players (or Decoders) connected to that Session.

To add a Session, select the 'Add Session' button. This opens the 'Create Session' page (Figure 2). Here one can give the Session a unique name and set its expiration (in hours) or set it as 'Unlimited' or Permanent.

Click 'Save' and the Session is registered, and the Share Sessions dialog opens (Figure 4). We'll discuss that below.



Create Session

Name:

Session expiration:

☒ Unlimited

☐ Timed Hrs

1
2
4
12
24
48

Figure 2. Create Session Dialog

[Edit](#) • [Share](#) • [Dashboard](#) • [Delete](#)

For any Session, there are 4 buttons that appear on its row, in the Sessions table (Figure 1, above); Edit, Share, Dashboard, and Delete.



Edit: The Edit button opens the Edit Sessions dialog (which is nearly identical to the Create Sessions dialog). This is useful when you want to add more time to an expired Session or to expire a Session (red arrow) so it can't be used for the time being.

Share: This opens the same dialog as when you saved the Session. The Share Session dialog makes the whole process of collaboration a turnkey operation. From here, you can easily share the new Session with the desired recipients. You can provide recipients with a Session ID for them to plug-in, or a Session Link that with one-click will open Media Player (on macOS, iOS, and Windows) and play the Session. Also, you can open/send an email invitation with a Session link and information on how to install Media Player.

Dashboard: The Dashboard (Figure 5, below) provides a convenient way for a Session host to monitor the activity of a session, the characteristics of the encoder stream, and the status of the connected recipients. Below is an overview. [Click here for a more detailed review of Dashboard.](#)

Title Bar – The important feature of the title bar is the 'LIVE' beacon, visible when your stream is being received by the Streambox Cloud server.

Top Line – Here you find both the **Session DRM** and **Session ID**. Both codes are clickable, to copy to the clipboard. The Session DRM is used for the Streambox Encoder, and the Session ID is used by clients to connect to the Session with Streambox Players/Decoders.

Left Panel – Here you find the information about the Session itself. Two items are of particular importance here; when the Session **Expires** and which Cloud **Server** the Encoder should be set to. In addition, you can review and set new **Network Settings** and **Color Space**.

Right Panel – Here you find information about the video stream being received from the Encoder.

Bottom Panel – Here you find the status of all connected players/decoders. Most important here is how long they have been connected and the network 'Quality' of their connection.

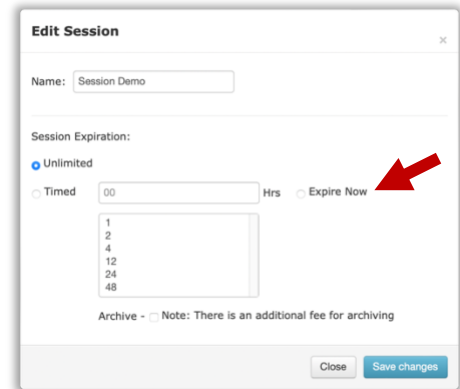


Figure 3. Edit Session Dialog

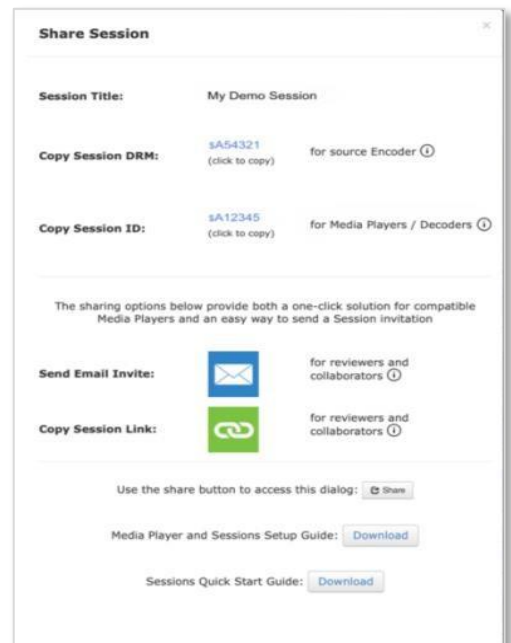


Figure 4. Share Session Dialog

Network 'Quality' is displayed as 'Good' (green), 'Fair' (yellow), 'Poor' (red), or 'Pending'. A fair or poor network quality is often related to unstable WiFi or mobile networks and does not necessarily mean that the received image/audio are of poor quality – just that many internet packets had to be resent. Pending is displayed until there is enough data to give a quality score (usually from 30 seconds to 2 minutes). You can click the info icon to see details. ⓘ

Note 1: 'Owner' is a future feature and currently reports 'Not Assigned'

Note 2: Decoder Name will be 'Ad-hoc' in most cases and reflects a newly created virtual decoder on the Streambox Cloud.

Delete button: This permanently deletes the Session.

Note: To temporarily disable a Session, you can expire a Session (within the Edit dialog). Then un-expire to use again.

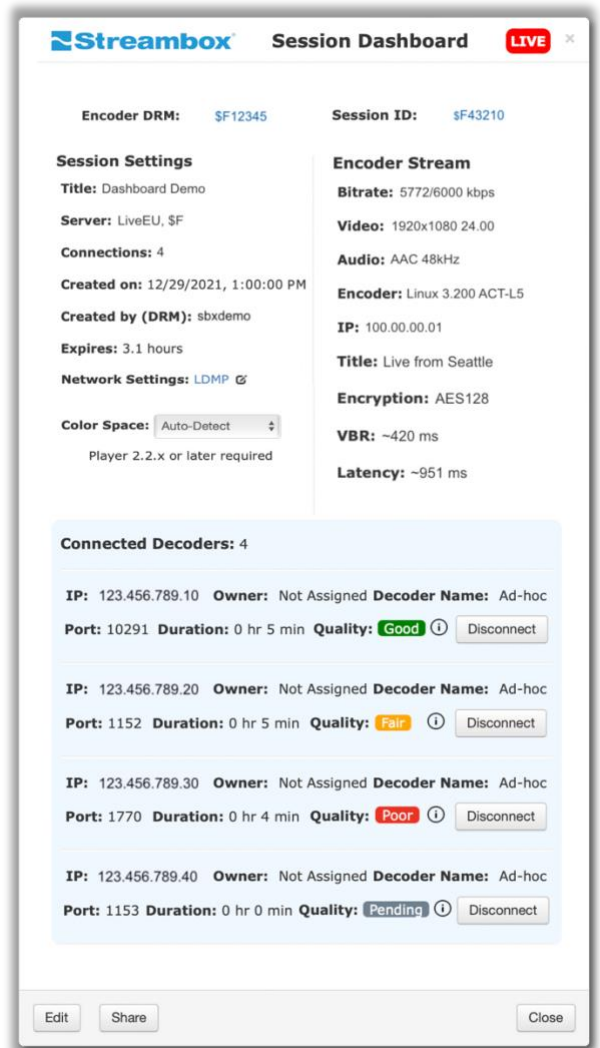


Figure 5. Sessions Dashboard

Step 2 – Setup & Start Encoder

Streambox Encoders come in several flavors based on the desired workflow (Spectra with plugins, Spectra with Blackmagic H/W, Chroma X, and Chroma 4K); they all stream with a proprietary codec (ACT-L3 or ACT-L5) that can only be received with Streambox players/decoders (for added security).

Set the Streambox Encoder's DRM (Session/Group) to match the Encoder DRM (as shown in Figure 6). The example on the right is from Spectra which saves the DRM/Sessions data under the Metadata tab. Be sure to add the \$ before the 6-character code (some Encoders require it). Remember to set the correct server on the Network tab, as shown below (Figure 7. If you must manually set the Decoder, refer the appendix for the matching IP address based on the first character of the Encoder DRM).

Always remember to 'Apply' any changes. Then start the live stream from the Encoder.

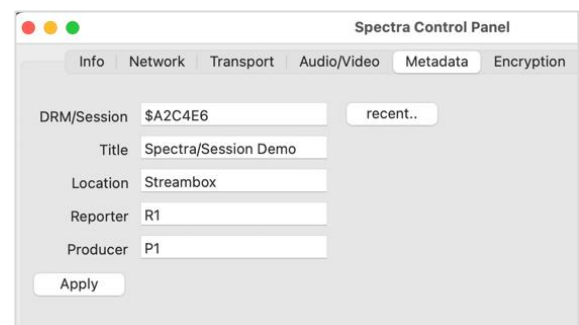


Figure 6. Metadata tab of Encoder

Streambox Sessions — Setup Guide

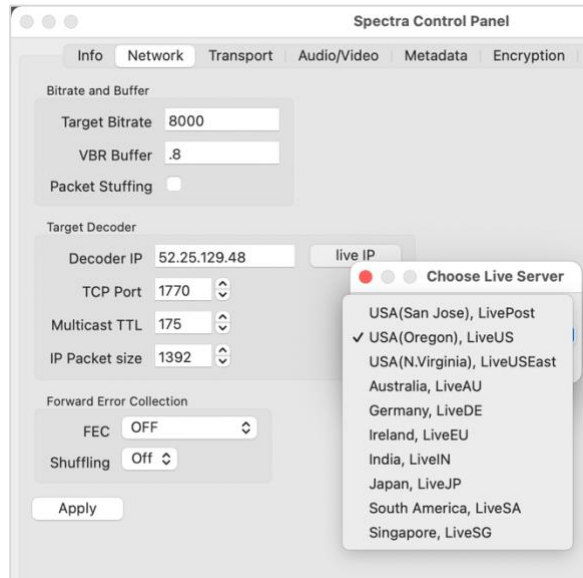


Figure 7. Network tab of Encoder

Step 3 – Invite and Collaborate

Invite collaborators from the Share Sessions page, see 'Share button' above. If they have Streambox Media Player installed, they need only click on the Sessions link (which will open the Media Player with the Session selected) or enter the Session ID in the 'Session ID' field of their Streambox Media Player (See Figure 8. Portrait orientation – green arrow) and click on Go!

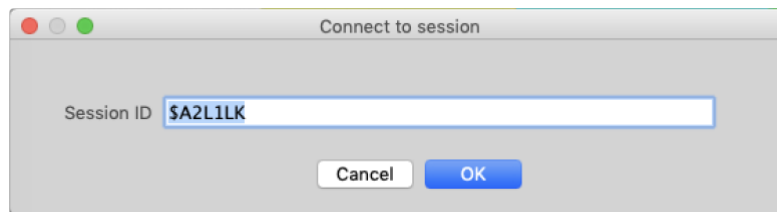
Once the Session owner starts streaming to that Session, all collaborators will see the video stream on their Streambox Media Players (macOS, iOS, Windows, Apple TV) and Streambox Decoders.



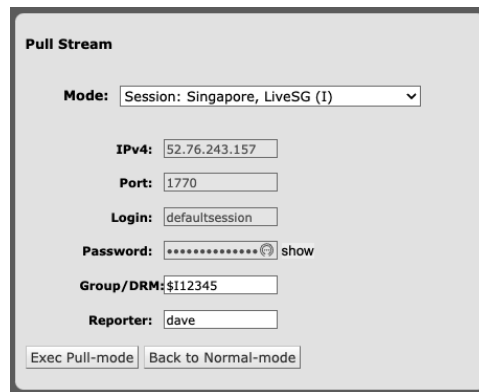
Figure 8. Streambox Media Player (macOS, iOS, Windows)

Streambox Sessions — Setup Guide

For legacy OSX Media Players (macOS Mojave or earlier), simply select 'Open Session' (Cmd-S) from the Settings menu. Enter the Session ID and click the OK button (image below). If the Session is encrypted, select 'Set Encryption Password' (Cmd-E) from the Settings menu to enter a valid decryption key.



For Streambox Chroma Decoders, open the 'Network' tab and select the Mode that matches the Session ID. In the example here, the Session ID starts with \$I, which will match 'Session: Singapore, LiveSG (I)'. Then enter the Session ID in the Group/DRM field and click the 'Exec Pull-mode' button.



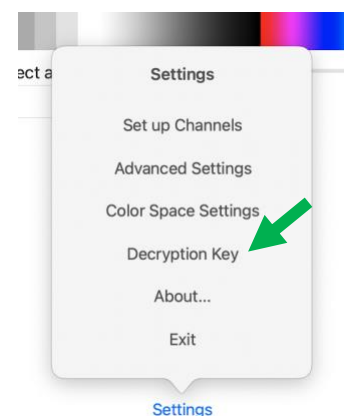
Encryption

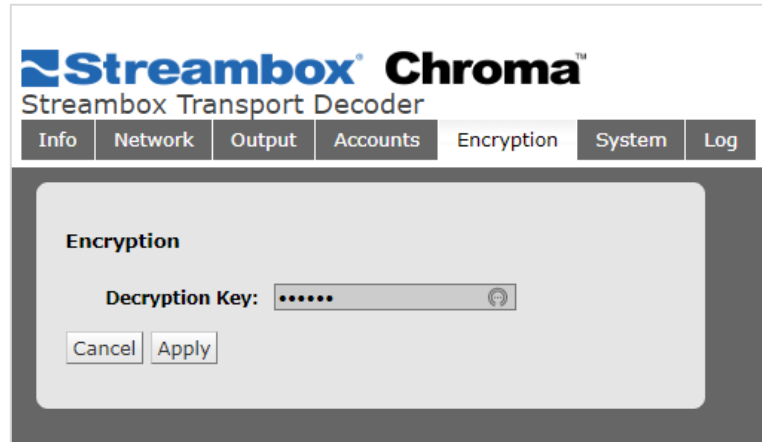
A Session can be encrypted for security. The encryption key is set by the host (on the Streambox Encoder). When a stream is encrypted, the host must provide the encryption/decryption key along with the Session ID.

For Streambox Media Players (macOS, iOS, Windows), the Encryption status is on the main page (in portrait orientation). In the example on the previous page (Figure 8), the status is 'none' implying that the stream was not encrypted. If the status is 'incorrect key' (or the like) then you need to secure the key from the host and apply it as follows.

Open the Decryption Key dialog from the 'Settings' menu to 'Set' the key (see image to right, green arrow).

For Streambox Decoders, open the 'Encryption' tab and 'Apply' a 'Decryption Key' (see image below).





Appendix

Setting up Channels (macOS, iOS, Windows, Apple TV, NODE)

macOS, iOS, & Windows

You can download the Streambox Media Player for macOS and iOS from the Apple App Store and for Windows from <https://www.streambox.com/software-media-players/>

The Session ID can be entered directly on the Home page (portrait orientation, non-full screen) or can be saved as a Channel for convenient recall (see image below).

For macOS and iOS: From the 'Settings' menu, select 'Set up Channels', then select 'Edit', and then 'Add' (top right) to open 'New Channel' dialog.

For Windows: From the 'Settings' menu, select 'Setup Channels', then click the 'Add' button to open the 'New Channel' dialog.

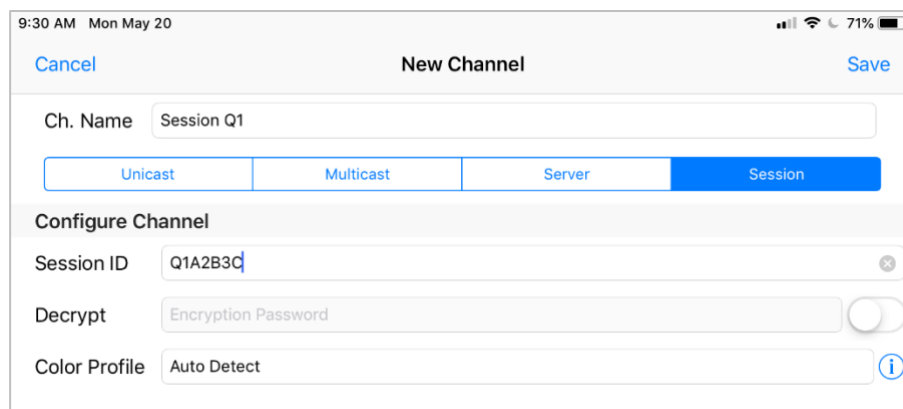


Figure 9. New Channel dialog - Streambox Media Player

Note: The host of the session will provide the Session ID and Decrypt[ion] key if applicable.

1. Select the 'Session' tab (Figure 9)

2. Provide a 'Channel Name' that helps you remember the properties of the channel
3. Enter the Session ID (provided by the host)
4. Enter a Decryption/Encryption key only if provided by the host (click or switch-on to apply)
5. Select a Color Profile ('Auto Detect' is recommended)
6. Click 'Save' (upper right corner)

This channel is now ready to use. Select this channel and you will be connected to the Session associated with the Session ID (note: it can take up to a minute to connect).

Apple TV

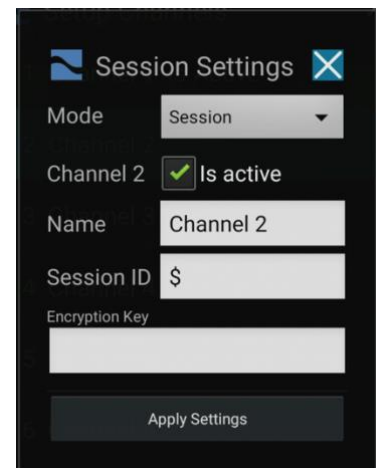
For Apple TV, you can enter the Session ID directly by selecting 'Open Session' from the main menu. If the stream is encrypted (key provided by Host), you select 'Decryption Key' from the main menu. To add channels, you must use the 'Sync Channels' method (please refer to the [Media Player for Apple TV setup guide](#)).

NODE

For more information about NODE: <https://www.streambox.com/node/>

1. Click the 'Settings' Button, then select 'Setup Channels'
2. Set Mode to 'Session'
3. Provide a useful 'Name'
4. Enter the 'Session ID' provided by the host
5. Enter 'Encryption Key' if provide by host.
6. Click 'Apply Settings' button.

This channel is now ready to use. Select this channel and you will be connected to the Session associated with the Session ID (note: this can take up to a minute to connect).



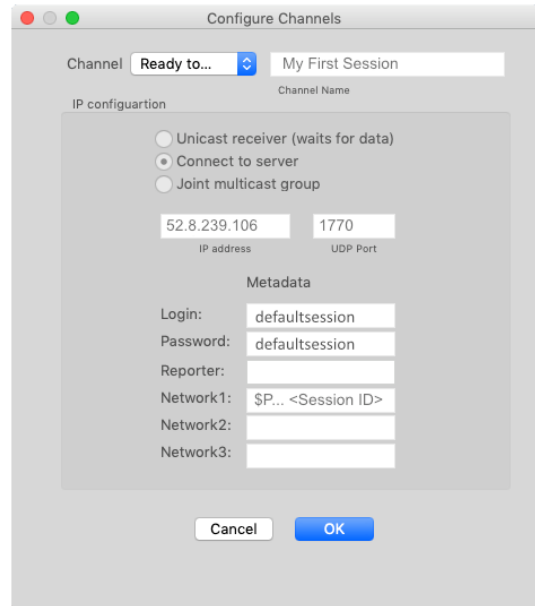
The screenshot shows a 'Session Settings' dialog box with a dark background. At the top left is a blue icon, and at the top right is a close button (X). The 'Mode' is set to 'Session' in a dropdown menu. Below that, 'Channel 2' is listed with a green checkmark and the text 'Is active'. The 'Name' field contains 'Channel 2'. The 'Session ID' field contains a dollar sign '\$'. The 'Encryption Key' field is empty. At the bottom is a button labeled 'Apply Settings'.

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Legacy Media Players

All Streambox Media Players can support Sessions via the creation of a channel. Open the setup channel page for the Media Player. Use the following settings:

- Select a 'Channel' to edit
- Channel Name = Enter a name. In the example here, we used *'My First Session'*
- Select **'Connect to server'** mode
- IP address = use IP of Live Server provided by session host
- UDP Port = **1770**
- Login = **defaultsession**
- Password = **defaultsession**
- Network 1 (aka, DRM or Group) = Enter the Session ID provided by the session host. Make sure it starts with \$
- Click 'OK'



Cloud Server IP Addresses

See this link to get the most current list of Streambox Cloud Server IP Addresses.

Live Server	Code \$	IP Address	Region
Live US .streambox.com	A	52.25.129.48	USA (Oregon)
Live USEast .streambox.com	B	54.83.19.155	USA (Northern Virginia)
Live AU .streambox.com	C	52.62.2.246	Asia Pacific (Sydney)
Live DE .streambox.com	E	54.93.179.19	Europe (Frankfurt)
Live EU .streambox.com	F	54.247.100.52	Europe (Ireland)
Live JP .streambox.com	G	52.69.71.156	Asia Pacific (Tokyo)
Live SA .streambox.com	H	54.233.86.10	South America (Sao Paulo)
Live SG .streambox.com	I	52.76.243.157	Asia Pacific (Singapore)
Live IN .streambox.com	J	52.66.83.26	Central Asia (India)
Live Post .streambox.com	P	52.8.239.106	USA (California)

LDMP Settings

- ✍ Bad LDMP settings can affect the quality of the image and sound. From the Sessions Dashboard you can set the LDMP settings for an individual Session. If this is not set, the Session will use the default LDMP routing settings (from the Live page on the Cloud Server – ‘Default Routing Protocol: LDMP’).

The values on the example here are generally a good starting point and will work with most Sessions. For more information on LDMP and Sessions see the [Sessions Dashboard document](#).

Default View Protocol Settings
This will change settings for this session.

Protocol: ☐ UDP (Default) ☒ LDMP

ACK Timeout:

Echo Packets Size:

Interface Timeout:

Buffer Size Packets:

Jitter 1:

Jitter 2:

Setting Up Encoders

Setting up a Streambox encode for a Session is easy – just 2 steps. The concept is the same for all encoders with slight variations based on model.

Micro, Avenir (1. Set destination Decoder)

- Open web page (enter Micro IP address in a web browser on the same network)
- Set decoder to desired Live Server (from Home page, select ‘Settings’ and then ‘Decoder’, and then select one of the decoders from Favorites (see image). The decoder will be applied automatically (if that doesn’t happen, click ‘Apply’).

Note 1: the Decoder IP must match the Session DRM based on the first character after the \$ (see ‘[Cloud Server IP Addresses](#)’ section above).

Note2: for users with legacy players, the host must include the Decoder IP along with the Session ID; see “Legacy Media Players” subsection above.

DECODER SETTINGS

Decoder IP:

Port:

Packet Size:

TTL:

Enable Stuff:

METADATA

Title:

Reporter:

Location:

DRM:

Decoder IP via Gateway:

Micro, Avenir (2. Set DRM)

- Now from the Home page, Select ‘Metadata’
- Change the DRM value to the ‘Encoder DRM’ value for the Session (see image, green arrow), and click ‘Save’.
- Start streaming.

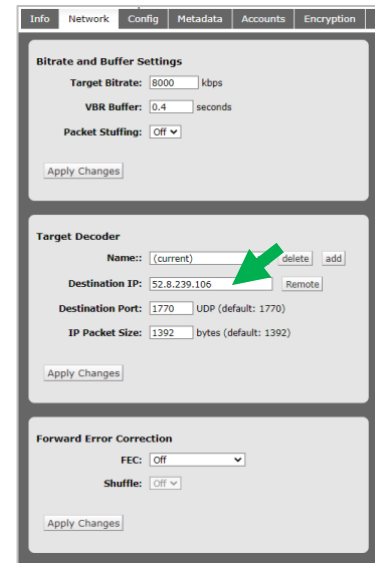
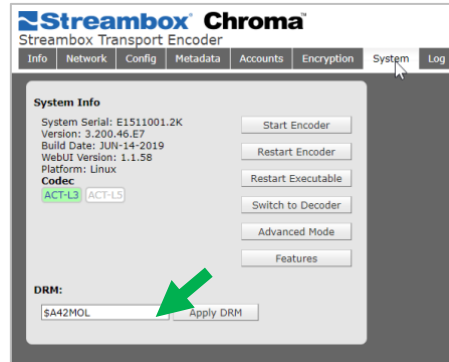
Streambox Sessions — Setup Guide

Chroma, Micro 2, Chroma X (1. Set Destination Decoder)

- Open web page (enter units IP address in a web browser on the same network)
- Set decoder to desired Live Server (from 'Network' tab enter the desired 'Target Decoder' IP address (see image, green arrow) from the list above. Click 'Apply Changes'.

Note 1: the Decoder IP must match the Session DRM based on the first character after the \$ (see '[Cloud Server IP Addresses](#)' section above).

Note2: for users with legacy players, the host must include the Decoder IP along with the Session ID; see 'Legacy Media Players' section above.



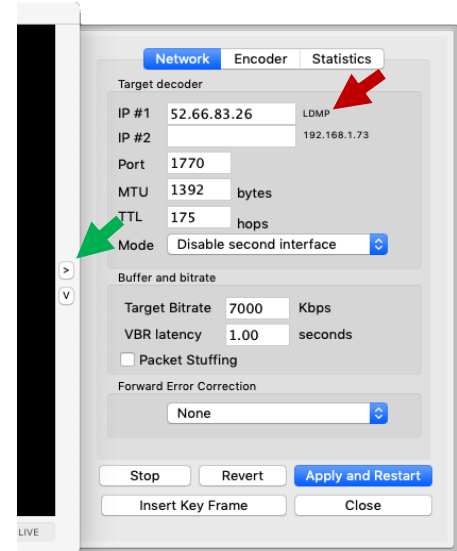
Streambox Sessions — Setup Guide

OSX (1. Set destination Decoder)

- Open web page (enter Micro IP address in a web browser on the same network)
- To set the destination decoder IP to the desired Live Server, click the slide-out button (green arrow) to access the 'Network' panel and enter the desired 'Target decoder' IP address (see '[Cloud Server IP Addresses](#)' section above, red arrow). Click 'Apply and Restart'

OSX (2. Set DRM)

- Select 'Metadata' from the top menu.
- Change the Group value to the 'Encoder DRM' value for the Session and click 'OK'.
- Start streaming.



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