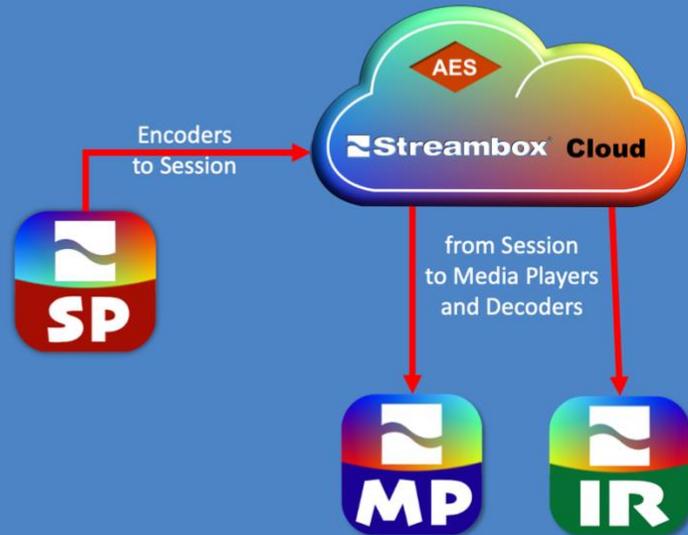


Streambox® Sessions™

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)

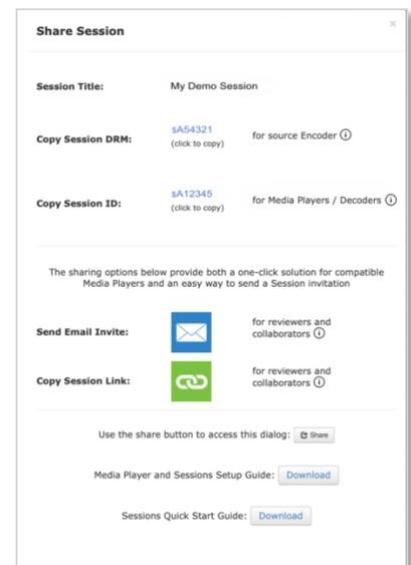


The Sessions Dashboard makes sharing high quality, 4:4:4, 10 & 12-bit video easier than ever. This is ideal for post-production editor, colorist, and stakeholder collaboration.

Now when you use a Session on the Streambox Cloud, there is an additional option – Dashboard. The Dashboard 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.

Getting Started with the Sessions Dashboard

1. Log in to Streambox Cloud and locate your current Session or create a new one. To create a Session, open the Sessions tab on live.streambox.com, and click the 'Add Session' button. Once you save the new session, a dialog will open with the session information and ways to share the Session with recipients – See image on right. You can always return to this dialog from the Sessions tab by clicking the 'Share' button on the Session's row (see image below).
2. Setup the stream by entering the **Session DRM** into your Streambox Encoder – under the Metadata tab for Spectra. Remember to set the correct server on the Network tab. For example, if the Session DRM starts with \$A, then the server is LiveUS.streambox.com. See table below.



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

3. Start your Encoder stream.

Now you are ready to use the Sessions Dashboard. From the Sessions tab, find your Session. Tip: You can always double-click the 'Connections' column to see the currently live Sessions (see image below). Click the 'Dashboard' button on your Sessions row.



Features of the Sessions 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 ([as described above](#)), and the **Session ID** is used by clients to connect to the Session with Streambox Players/Decoders.

Top Right Panel

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

Top 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.

Advanced Settings

There are two settings that allow for on-the-fly adjustments, as needed: Network Settings and Color Space.

Network Settings

See blue arrow in Dashboard image on previous page. Here the transport protocol is listed, UDP or LDMP. LDMP is a multi-pathway, connection-oriented protocol. We recommend using LDMP in most cases. Because LDMP is connection-oriented, it's settings can affect transmission quality. If Network Settings is LDMP, you can hover to see current settings (lower image on right). There are only two settings that are likely to impact the quality of your stream.

The screenshot shows the Streambox Session Dashboard for a session with ID \$F43210. The top left panel displays session settings: Title (Dashboard Demo), Server (LiveEU, \$F), Connections (4), Created on (12/29/2021, 1:00:00 PM), Created by (DRM) (sbxdemo), Expires (3.1 hours), and Network Settings (LDMP). The top right panel shows encoder stream details: Bitrate (5772/6000 kbps), Video (1920x1080 24.00), Audio (AAC 48kHz), Encoder (Linux 3.200 ACT-L5), IP (100.00.00.01), Title (Live from Seattle), Encryption (AES128), VBR (~420 ms), and Latency (~951 ms). The bottom section lists four connected decoders with their IP addresses, owners, decoder names, ports, durations, and quality levels (Good, Fair, Poor, Pending). A blue arrow points to the Network Settings dropdown, and a red arrow points to the LDMP icon. A green arrow points to the Session ID.

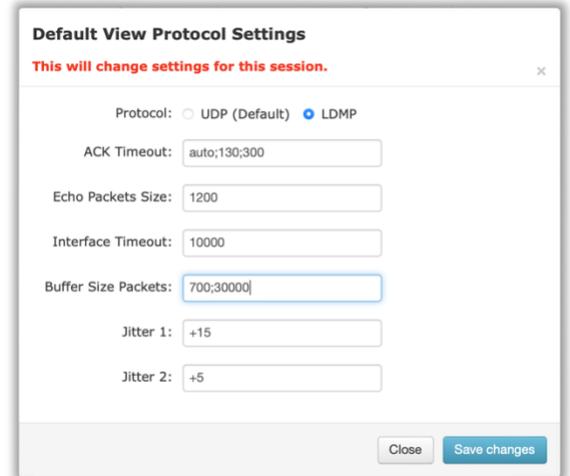
- ACT Timeout – represents the time allowed for an acknowledgment to be received. In most cases, 'auto;130,250' works just fine and should not be adjusted. Two things can impact this. 1) if one of the receiving players/decoders are extremely far from the AWS server where the Session is defined (say, across an ocean), you may want to boost 250 to 500. 2) if you are trying to get extremely low latencies (< 750msec), you may want to use a fixed ACT Timeout. For example, if all those receiving the stream are located within a 500-mile radius of the AWS server, then you could change the ACT Timeout to 100 or less (without auto;130).

The dialog box titled 'Session LDMP Parameters' displays the following settings: ACK Timeout: auto;130;250, Echo Packets Size: 1200, Interface Timeout: 10000, Buffer Size Packets: 700;8000, Jitter 1: +15, and Jitter 2: +5.

- Buffer Size Packets – contains a cap value for the maximum bitrate allowed. This is used to limit bitrate where the receiving players/decoders are on limited bandwidth networks like WiFi or mobile. In the image above, you see the value is 8000 which means that the bitrate will be capped at 8Mbps. This is a good value for HD, being streamed at about 6Mbps. But if the stream is 16Mbps, the bitrate will be capped, and the reception will be

of poor quality. In most cases, we recommend setting this value to the highest bitrate you plan to use, for example, 12000 for HD, and 48000 for UHD. Then adjust the bitrate on the Encoder side as appropriate. Note: At the higher bitrate, the receiving players/decoders must be connected to networks that can support that bandwidth.

☑ If you need to change the Network Settings for this Session, click on the action icon (see blue arrow in image above) to open the Session's protocol dialog (see image on right). Note: Changes here will only be applied to this Session (and will not affect any other Session or the global protocol settings).



Color Space

See red arrow in Dashboard image on previous page. For colorists collaboration, it is important to ensure that all viewers are using the same color space (that is supported on all viewer's equipment). Auto Detect, simply passes the incoming stream from the Encoder without alteration. If the color space must be changed so that all viewers can display the same color space, then click the button and select an appropriate color space from the menu (see image on right). The stream will then be transformed to the selected color space.

Note: It is important to use the latest versions of Media Player and/or decoder software to ensure proper expression of these features.

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.



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).

Note 1 : By hovering over the info icon (green arrow on Dashboard image above), you can see the details about a specific connection.

Note 2: Owner is a future feature and currently reports 'Not Assigned'

Note 3: Decoder Name will be 'Ad-hoc' in most cases and reflects a newly created virtual decoder on the Streambox Cloud.

Bitrate: 5183 | Total Packets Sent: 17244 | Total Packets Resent: 0 | Percent of Packets Resent: 0 | RTT: 318 | Average RTT: 288 | Max RTT: 481 | ACK To: 1000 |

Edit and Share Buttons

The Edit button opens the original Session Create dialog. This is useful when you want to add more time to an expired Session or to expire a session so it can't be used for the time being.

The Share button opens the Share Session dialog ([as shown above](#)) and is a good interface for sharing the Session with more/new recipients.

Comments & Suggestions

We are always trying to improve our user experience and welcome any comments or suggestions. Email them to: commets@streambox.com

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