

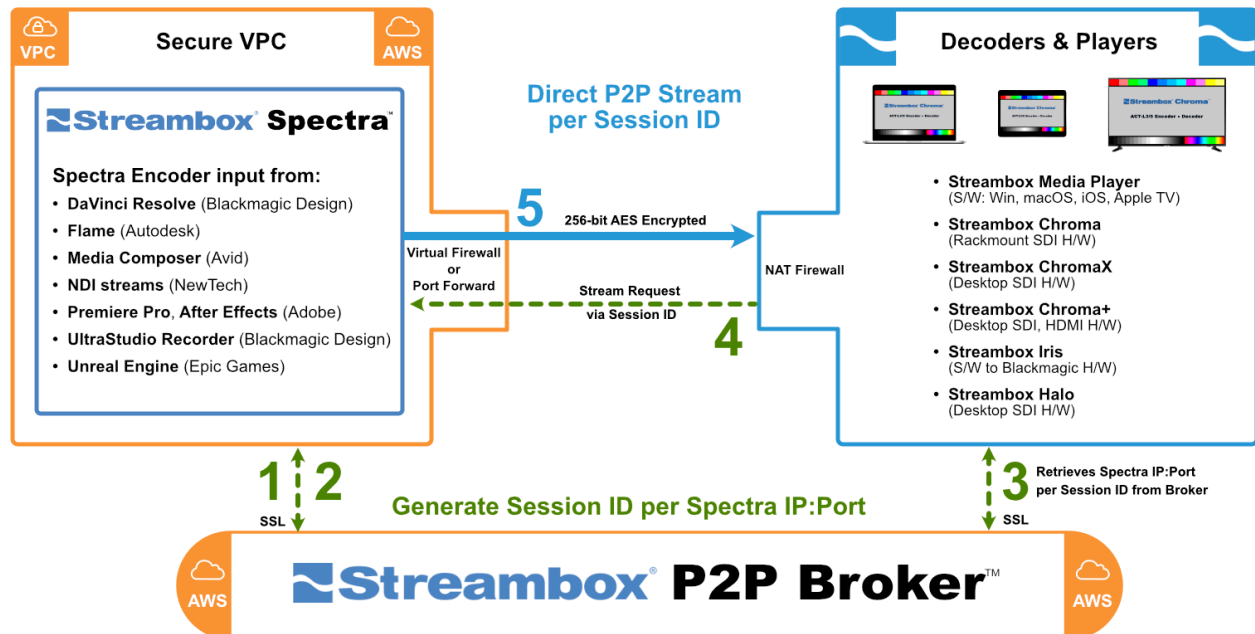
Streambox Setup for Point-to-Point Streaming



Point-to-Point Streaming Guide

Streambox Ultra-low Latency, Color Accurate, Secure, Point-to-Point Streaming

1. Spectra provides public IP:Port to Streambox P2P Broker (metadata)
2. Broker generates/returns Session ID (associated with Spectra IP:Port) (metadata)
3. Streambox Decoder/Player initiates stream via associated Session ID (metadata)
4. Spectra IP:Port provided by Broker used to request P2P stream (metadata)
5. Spectra streams directly, point-to-point, to Streambox Decoder/Player (video & audio)



Note: This document reflects the current feature-set which may change without notice (February 2023). We will attempt to keep all users up to date on any such changes.

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Introduction

There are many workflows where streaming point-to-point (P2P), bypassing additional cloud services, is desired, e.g., return viewing for broadcast or a reference display for post-production editing. Streambox provides an easy to deploy P2P workflow that is ideal for on-location or at home setups. This workflow bypasses the requirements of knowing/setting the public IP address or the setting up port-forwarding.

This release is supported in the latest cloud encoder versions of Streambox Spectra VM and Streambox Bridge. The point-to-point stream can be received on any of the latest versions of Streambox Media Player (iOS, macOS, Windows) and Streambox Iris (with Blackmagic H/W output).

Point-to-Point Setup

- 1) You will need to have either Streambox Spectra VM or a Streambox Bridge encoder setup on a cloud computing service like AWS. This setup should include an input from an editor like Adobe Premiere, Blackmagic DaVinci, Resolve, Autodesk Flame, Avid Media Composer, etc.

NOTE: Contact Streambox Support for a list of the latest supported media editors or for help is the initial setup. If you are using the Spectra app, you will also need an activation code, for the 'PullStream' feature.

- 2) Creating a P2P Session – Pull Port Number.
Open the Metadata tab (see image below). On the P2P panel, enter a PULL PORT number (we recommend values between 1770 and 1800). 1720 in this example (see red arrow). Varying the value of this number is only important if you have more than 1 stream being

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sent to the same IP address (location).

NOTE: When creating a P2P Session on an encoder that is behind a firewall (i.e., the encoder is on a different network than the decoder/player), you need to set up port-forwarding, using the Pull Port number you set above, on the router to that encoder.

3) Creating a P2P Session – Client Session ID.

Click the 'New' button to generate a Client Session ID. This ID will remain for the next 10 hours (clicking New again within that window will not update the Client Session ID). You can Start or Stop the Session at any time. Enter/Paste the Client Session into any of the latest versions of Streambox Media Player or Streambox Iris. The video should start within a minute.

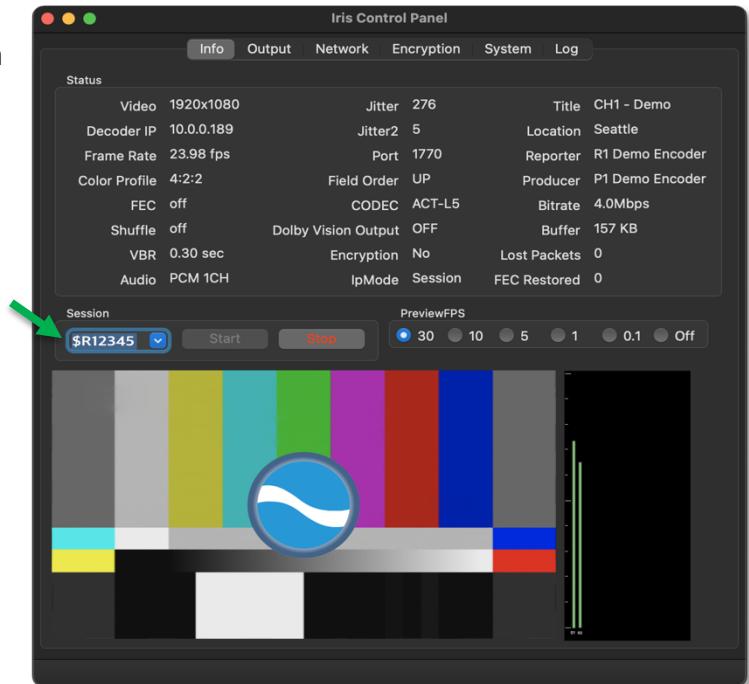
Note: Make sure that the Destination IP on the Network tab is blank (and Apply if it wasn't).

The screenshot shows the Streambox Transport Encoder web interface for Channel 1 [REF. ENCODER]. The interface includes a top navigation bar with tabs: Info, Network, Config, Metadata, Accounts, Source, System, Features, and Log. The 'Metadata' tab is selected, showing fields for Transport Metadata (Title: CH1 - Demo, Location: Seattle, Reporter: R1 Demo Encoder, Producer: P1 Demo Encoder, DRM: private) and DolbyVision Metadata Capture Mode (ON, RAW, OFF). The 'P2P beta' section displays the Pull Port (1720) and Client Session (\$R12345). A blue arrow points to the 'Administrator Logout' link in the top right corner, and a red arrow points to the Pull Port field.

NOTE: This is a Point-to-Point stream so only one player can pull the stream at a time. You can tell if the stream is being pulled by the bitrate value in the upper right corner (blue arrow, image above).

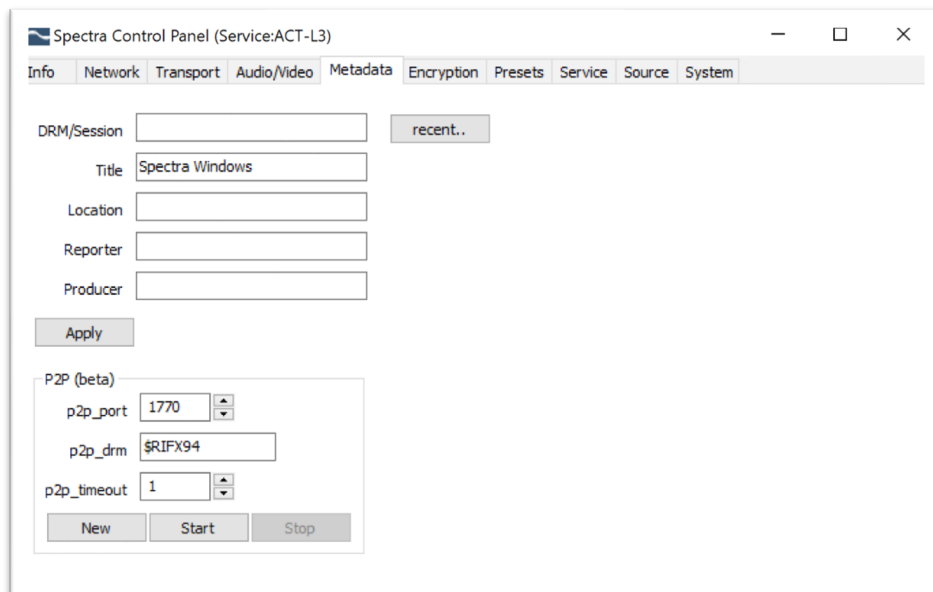
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- 4) To receive the video, you just enter the Client Session ID from the P2P panel into the Session ID field of Streambox Iris or Streambox Media Player (green arrow, image below). Remember, this is Point-to-Point so only one player can pull this stream at a time.



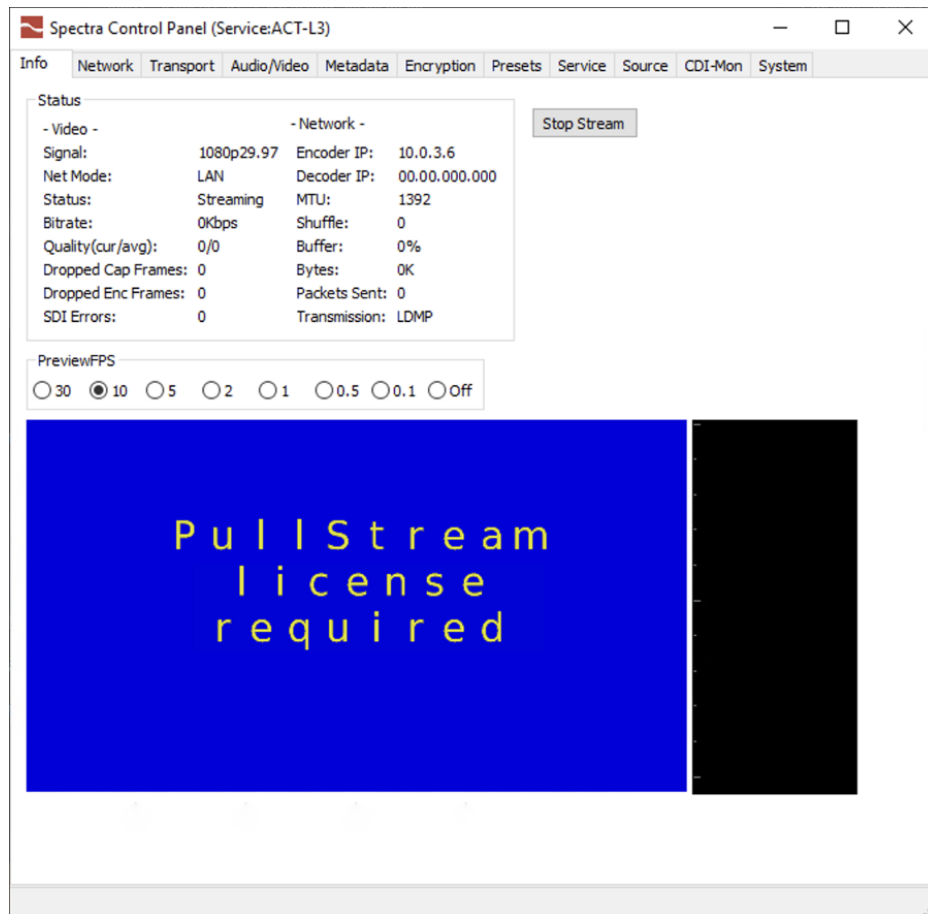
Point-to-Point Setup with Spectra app

The latest version of the Spectra app (Win, macOS) supports point-to-point streaming. Point-to-Point setup is found on the Metadata tab as [described above](#).

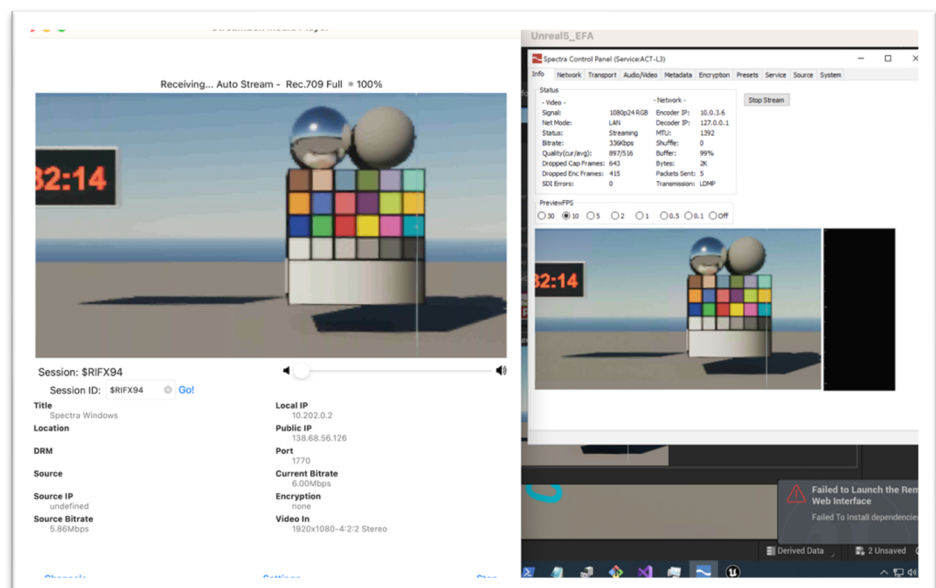


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NOTE: If you are using the Spectra app, you will need an activation code, for the 'PullStream' feature. The image below shows the Preview when the PullStream feature is not activated.



In this image, you can see Spectra streaming the output of Unreal (right side) and Streambox Media Player receiving it (left side).



Appendix

Version downloads

IRIS 1.3.3 X52.B14:

<https://www.dropbox.com/s/jrgpkvd7tav6ukp/Streambox%20Iris%20for%20macOS.1.3.3.pkg?dl=0>

MediaPlayer iPad/iOS/macOS TestFlight iOS, macOS (Build 349 or better):

<https://testflight.apple.com/join/JQUq2Xf>

MediaPlayer macOS signed download :

<https://www.dropbox.com/s/2gw7iyy69l6xgc8/SMP.macOS.3.0.9.349.zip?dl=0>

Streambox Bridge Minimal Update for P2P:

```
cd /tmp
wget https://www.dropbox.com/s/0ulhbhikqqnmzko/P2P.2.18.tgz
tar xvf P2P.2.18.tgz
cd P2P6
sudo yum -y install libtiff libdrm libasound2 alsa-lib
sudo rpm -Uvh streambox_app_pack-52.B14-2.x86_64.rpm
sudo rpm -Uvh streambox_webui_for_rackmount-1.1.161-1.noarch.rpm
sudo rpm -Uvh streambox_www_for_avenir-1.8.197-1.x86_64.rpm
```

Note for Streambox Bridge

Auto Streaming on Encoder startup might interfere with P2P if enabled.

It can be disabled/enabled for each Encoder channel individually.

You can also simply stop streaming.

To disable from web UI for encoder:

Settings/System/Advanced/

Settings/System/Others

[Strm On Boot]

Turn Off, Save

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