
What is end-to-end video streaming?

End-to-end video streaming allows the video device to provide continuous playback from the customer website, provided the network stays stable. The video device automatically attempts to establish an end-to-end connection whenever possible.

WebRTC streaming requirements

To continuously stream live video using the customer website, a customer will need one of the following video devices with firmware 0.6.7.852+:

- 1080p Indoor Wi-Fi Camera (ADC-V523/523X)
- 1080p Outdoor Wi-Fi Camera (ADC-V723/723X)
- 1080p Outdoor Wi-Fi Camera with Two-Way Audio (ADC-V724/724X)
- Pro Series 1080p Mini-Bullet Camera (ADC-VC727P)
- Pro Series 1080p Dome PoE Camera (ADC-VC827P)
- Pro Series 4MP Bullet PoE Camera with Varifocal Lens (ADC-VC728PF)
- Pro Series 4MP Varifocal Turret Camera (ADC-VC838PF)
- Pro Series 1080p Dome PoE Camera with Varifocal Lens (ADC-VC847PF)

If the video device is unable to maintain a continuous connection, it will revert to the standard web view with a 3-minute timeout. For more information about live video streaming and the live video stream timeout, see [Live video streaming](#).

Continuously stream live video using the customer website

There are 3 different streaming options available for the customer website. WebRTC Direct Connection, WebRTC Relayed Connection, and WebRTC Proxy behave differently depending on which method is used.

Important: Cameras that receive their network connection from a Pro Series CSVr may not establish a Direct connection unless audio is enabled in the web browser. Allowing audio access can help create a direct connection, because the browser uses additional connection methods when audio is enabled.

WebRTC Direct Connection streaming

WebRTC Direct Connection streaming is a peer-to-peer connection in which a direct connection has been established between the user's customer website live stream and their camera without any intermediary.

To establish the initial connection, the IP addresses of the two peers are shared via ADC servers.

How is the WebRTC Direct Connection user experience different?

WebRTC Direct Connection uses a direct connection established between the user's customer website live stream and their camera, and the stream will continue indefinitely.

For accounts with the *Non-doorbell audio* add-on enabled and two-way audio-capable cameras, the user will be able to initiate two-way audio calls.

WebRTC Relayed Connection streaming

A WebRTC Relayed Connection connection is established when a direct connection between the user's customer website player and their WebRTC-configured camera can't be established. This situation can arise when customers have strong firewalls that prevent the camera from sharing its IP or when a peer-to-peer connection is unstable. In this situation, a peer-to-peer connection is established between the camera and an ADC server, as well as the ADC server and the customer website live stream.

The server relays the WebRTC traffic bi-directionally.

How is the WebRTC Relayed Connection user experience different?

A WebRTC Relayed Connection connection is used when a direct connection can't be established between an ADC server and the customer's camera. This traffic is relayed through separate, direct connections between the user's camera to the ADC server, and the ADC server to the customer website live stream. The stream will terminate after 15 minutes.

For accounts with the *Non-doorbell audio* add-on enabled and two-way audio-capable cameras, the user will be able to initiate two-way audio calls.

WebRTC Proxy streaming

WebRTC Proxy is the default streaming option. This will be used for cameras that don't support WebRTC connections or when a WebRTC connection fails. The camera streams over RTSP to an ADC server, and the ADC server relays the traffic to the user's customer website live stream via a WebRTC connection.

This uses the default streaming requirements for ADC cameras.

What makes the WebRTC Proxy user experience different?

A proxied connection is established between the user's customer website player, our backend servers, and their camera. The stream will terminate after 3 minutes.

Two-way audio is not supported while using this streaming method.

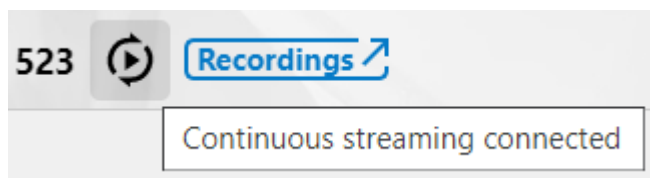
How do you determine which streaming method is used?

There are different icons for each streaming method in the customer website, and it may take a few minutes to configure the WebRTC live stream. If you don't see the Direct or Relayed connection icon after updating the firmware to the minimum version or installing the camera, wait 2 to 3 minutes for the icon to appear.

Note: The WebRTC streaming method icon does not appear when using *Log In with Access* without video access. For more information about how to use Log In with Access, see [Using Log In with Access](#).

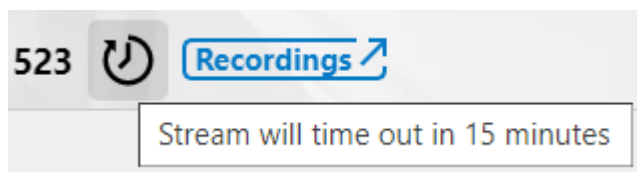
WebRTC Direct Connection streaming

When WebRTC Direct Connection streaming is active,  will appear on the camera live stream. Mouse over the icon to display the message, *Continuous streaming connected*.



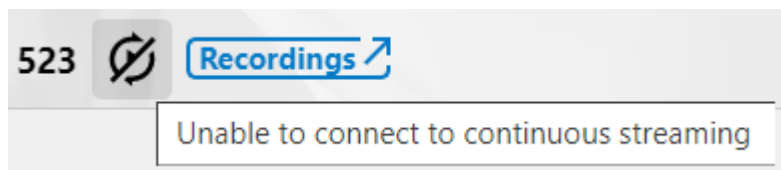
WebRTC Relayed Connection streaming

When WebRTC Relayed connection streaming is active,  will appear on the camera live stream. Mouse over the icon to display the message, *Stream will time out in 15 minutes*.



WebRTC Proxy streaming

For cameras that meet the requirement for WebRTC Direct Connection or WebRTC Relayed Connection but are streaming over WebRTC Proxy,  will appear in the live feed. Mouse over the icon to display the message, *Unable to connect to continuous streaming*.



For cameras that do not meet the requirements for WebRTC Direct Connection or WebRTC Relayed Connection, and can only stream over proxy, no icon will appear on the live stream.

Force a WebRTC Direct connection stream

In instances where a direct connection is desired and was not initially successful, customers can reattempt to establish a direct connection.

To force a WebRTC Direct connection stream:

1. Log into the customer website.
2. Click **Video**.
3. On the *Live Video* page, mouse over a camera live stream.
4. Click on the stream-type indicator icon  or .
5. In *Camera Connection*, click **Try Direct Connection**.

