Introduction

Wirecast’s built-in peer-to-peer video conferencing system, Rendezvous, is a powerful feature that makes it easy to produce live interviews, talk shows, panel discussions and co-hosted shows.

It allows Wirecast users to connect to remote guests and bring their audio and video directly into their broadcasts and live productions without the need for third-party conferencing systems like Skype, Zoom or Google Hangouts.

Rendezvous makes it possible to easily manage multiple callers within your live production without juggling other applications, logins, screen captures or the need to do complex audio routing. With Rendezvous, you simply send your guests a link they can open in a web browser, on their Android or iOS mobile device – and then they will join your broadcast.

In this guide, you will learn how to start a Rendezvous session and best practices for making your Rendezvous sessions successful.

Getting the Best Quality

Before you start inviting your guests, there are a few things you’ll need to know.

**Video/Audio Quality**

High quality interviews and remote video conferencing need a lot of bandwidth in both directions - upload and download. Rendezvous will intelligently auto-scale the video and audio quality of the guest(s) depending on:

1. How many guests are on the call
2. The guests’ bandwidth (upload and download)
3. The host’s bandwidth (upload and download)
4. The type of device you are connecting from

The maximum quality video Rendezvous is capable of is 1280 x 720 at 30 fps (frames per second) when connecting from a computer or WebRTC- enabled browser. This quality is sustainable for up to two guests plus the host, simultaneously, for a three-way conference. If you add more than two guests, (Wirecast Studio limits the number of guests to two, while with Wirecast Pro you can add up to seven guests) the video resolution and bitrates will likely be scaled down based on the host’s and guests’ available bandwidth and computer processing. If you are connecting to Rendezvous with an iOS device, the maximum quality possible is 856 x 480 at 15 fps. The maximum audio bitrate for Rendezvous is 60 kbps.
**Bandwidth**
In order to create a multiple guest Rendezvous session, you and your guests will need enough bandwidth set aside JUST for the purposes of your conferencing connection; this does NOT include the additional bandwidth you may need for streaming, broadcasting, IP cameras or other network activities related or unrelated to your Wirecast production. In general, to get the best quality audio and video possible during your Rendezvous session, follow the guidelines in this table:

<table>
<thead>
<tr>
<th># of Guests</th>
<th>Recommended Bandwidth (Host &amp; Guests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>4-5 Mbps up ▶ down</td>
</tr>
<tr>
<td>3-4</td>
<td>5-8 Mbps up ▶ down</td>
</tr>
<tr>
<td>5-7</td>
<td>6-10 Mbps up ▶ down</td>
</tr>
</tbody>
</table>

You and your guests need the above amounts of bandwidth, each, for best performance. This allows all parties to see and hear all other parties in the best possible quality.

**Connection Type**
There are different ways to connect to a Rendezvous session. Determine the type of connection you and your guests will be using. Whenever possible, it is recommended that you use a hardwired Ethernet connection to minimize failure points and the chance of packet loss or connectivity issues.

**Cameras and Microphones**
The camera and microphone is entirely negotiated through the browser or the WebRTC app they are using to connect to the call. When guests are using a computer to connect to the call, encourage them to use the best camera or microphone their browser will detect. Please note that not all mobile devices will support the use of an externally connected camera or microphone. Chrome and Firefox should be able to detect most USB and UVC devices (webcams, USB microphones, etc.) and they should be selectable when joining a Rendezvous conference. Rendezvous hosts can use any live video/audio source available within their Wirecast project.

**Before the Call**
Now that you know the basics, let’s walk through a few tips to help you prepare for your Rendezvous call.

**Run a bandwidth test**
Both you and your guest(s) should run a bandwidth/speed test. Refer to the chart above for how much bandwidth you will need to get the best quality. Try to test in the exact time of day or environment you plan on using during the live broadcast. You can use the following sites/apps to help determine your speeds:

- [www.speedtest.net](http://www.speedtest.net)
- [www.testmy.net](http://www.testmy.net)
- [Ookla](http://www Ookla)

**Note:** If you’re experiencing issues, please have your guest run [test.webrtc.org](http://test.webrtc.org) to see if their browser is configured properly.

Remember, whether you are the Rendezvous Host or Guest, your device should be powerful enough to send and receive video in near real-time.

If you or your guests are not getting the necessary bandwidth, you can try these steps to improve performance:

- Close non-critical apps/tabs in the browser, computer or device
- Ask other people on the network to stop using it for the duration of the Rendezvous session or use a dedicated network
- Try connecting from a different location or a different device
- Contact the Internet Service Provider

Quiet!
Ask your guests to find a quiet place to participate to minimize background noise and distractions.

Lights, Camera, Action!
Check the audio, video, lighting and background quality of your guests before the broadcast. Just a few simple changes can make your Rendezvous session look and sound much better! Well-lit faces without harsh shadows always look best.

Use Headphones:
Both you and your guests should use headphones when participating in a Rendezvous session. This improves audio quality and avoids feedback from the microphones.

Setting Up a Test Rendezvous Session
The only way to truly know about the audio and video quality your guests have is to set up a test session and find out. The steps here are the same you will go through when setting up your session for the actual broadcast, but it’s always good to have a practice run.

Set up Wirecast
Open your Wirecast project. Add all of your sources and graphics. Make sure all of the shots are set the way you want, and configure your destination.

Create a Rendezvous Session
When you are ready to connect to your guest(s) with Rendezvous, click the “+” button on any layer in the Master Layers or Shot List. This will open the “Add Source” menu. Select Network > Rendezvous Session > Create Rendezvous Session.

Copy the Invitation Link
Creating a new session will open the Rendezvous Session window with a Rendezvous link. Click “Copy” to copy the link. A green check mark will appear to let you know the link was successfully copied. This is the link you can send to your guests through email or instant message.

Open the Rendezvous Dashboard
Click “OK” after copying the link. This will open the Wirecast Rendezvous Dashboard. This is where you will manage your audio, video and your guests’ connections for the Rendezvous session.

Configure Audio and Video
Before you invite your guests, take a moment to configure your own audio and video. Click the gear icon under your video image and select the correct audio and video source for you. This is what your guests will see and hear.

Send the Invite Link
Now it’s time to invite your guest(s). Paste the Rendezvous link into an email, chat or text. If for some reason it isn’t pasting, you can copy it again at the bottom of the Rendezvous Dashboard.

iOS Users
If your guest is connecting from an iOS device, they will be prompted to download Wirecast Go from the app store. This is a free app that is required to participate in the Rendezvous session. Once they have downloaded and installed Wirecast Go, they need to open the app and go through the initial tutorial steps, close the app and then tap the link to connect to the Rendezvous session.

Android Users
The Rendezvous link will open in Google Chrome by default to connect to the session.
Computer Users

Clicking on the link on a computer will open the default browser. If the default browser is not supported, such as Safari, guests can right click on the link and choose “Open With...” and select a supported browser.

Watch Your Notifications

When a guest clicks the link to join the session, a notification will pop up in your System OS Notifications (Mac and Windows). You will also see a notification in the lower left corner of the Rendezvous Dashboard as well as below the Live window in the main Wirecast document window. Click on any of these to accept your guest into the Rendezvous session.

Add Your Guest

Once all of your guests are connected, you should now be able to add their individual video and audio feed(s) as a live source to any layer or shot in your Wirecast project. Just select the (+) again and choose “Wirecast Rendezvous > [Guest Name]”. All connected guests should appear listed there with the names they used to identify themselves.

Configure Guest(s) Shots

Take a moment to arrange your shots and put your guests in the correct compositions. Now you are ready to start your Live production using Rendezvous.

Returning Your Live Broadcast or Program Output

Wirecast allows you to send your Rendezvous Guests the Wirecast live program output (what the audience sees). This way they can see if they are on camera and get a good idea of the program content as it is occurring. To return the output, video and audio, to your guests, select the “Live Output from [Wirecast document] in your Rendezvous Dashboard as your video and audio inputs for the camera and microphone.

Disconnecting and Reconnecting to a Rendezvous Session

One of the great things about Rendezvous is that you can invite anyone to join your Rendezvous session or disconnect them at any time. They cannot rejoin your Rendezvous session without your permission even if they have a link.

Each time they connect, you must approve their request to join by accepting the call. Even better, you do not have to create a new Rendezvous session and send out a new link every time you want to invite people to join. The link stays active for 24 hours from the time it was created. You can reopen your last session and anyone with the link can still request to rejoin by clicking on the old link. You can also send the link to new participants.

This makes it easy to quickly take up where you left off or use one Rendezvous session link for multiple broadcasts. However, if you do create a new Rendezvous session or 24 hours has elapsed from the time it was created, that will generate a new link and the old link will no longer work. You will need to send out the new link to anyone you want to join.

Muting and Managing Audio

All audio and video for your Rendezvous guests can be muted in your Rendezvous Dashboard. Guests will hear each other and the host’s audio at all times unless they mute themselves.

If the Rendezvous Dashboard is closed, you will not hear your guests’ audio unless their audio is in a shot that is actively being monitored (if the “Monitor” check box is checked) in either the Preview or Live Windows. Your guests will still hear you and each other, even if the Dashboard is closed, unless you mute your return audio in the Dashboard.

Audio Echoes

You (the Host) will not hear your own voice in the Rendezvous Dashboard, as Rendezvous automatically filters out your voice (mix minus), based on the audio input device selected. However, Wirecast does not automatically turn off monitoring of active shots.

If you have a microphone or audio input device in an active shot in the Shot List, you will hear your own voice unless you uncheck “Monitor” in the device settings tab.

Similarly, if the Rendezvous Dashboard is open, you will hear your guests’ audio, but you will hear it again (an echo) if your guests’ audio is actively being monitored in a shot in the Live or Preview Windows unless you un-check the “Monitor” check box.
Returning Mix-Minus or Program Audio
Wirecast allows you to output sub-mixes to your guests. For example, you can send your guest the broadcast mix minus their voice. You can also mix and match document sources from the drop down. Wirecast Pro users can click “Advanced” and select individual device channels to bring in. Rendezvous guests will hear every other guest and the host, as well as the Live output and selected audio sources.

Tally Lights
So that your guests will know their shot is live in the Wirecast program output, a red dot will appear in their Rendezvous console. This will let them know that they are currently live and the audience can see and hear them. A red dot means they are Live; a green dot means they are in Preview and should get ready to be live.

Rendezvous Audio Mixer (Pro Only)

Using Screen Sharing
It is possible for Rendezvous guests to share their screen with the Wirecast Host. This is perfect for live demos, remote screen shares and more. This only works on desktop computers using Chrome or Firefox browsers to connect to the Rendezvous session.

To choose a screen to share, Rendezvous Guests should do the following:
- Join an active Rendezvous session
- Click the Settings button in the lower left corner of the Rendezvous browser console
- From the “Camera” section, select “Screen Share”
- Select which screen you wish to share

Note: Chrome users will be prompted to install the Wirecast Rendezvous screen sharing extension