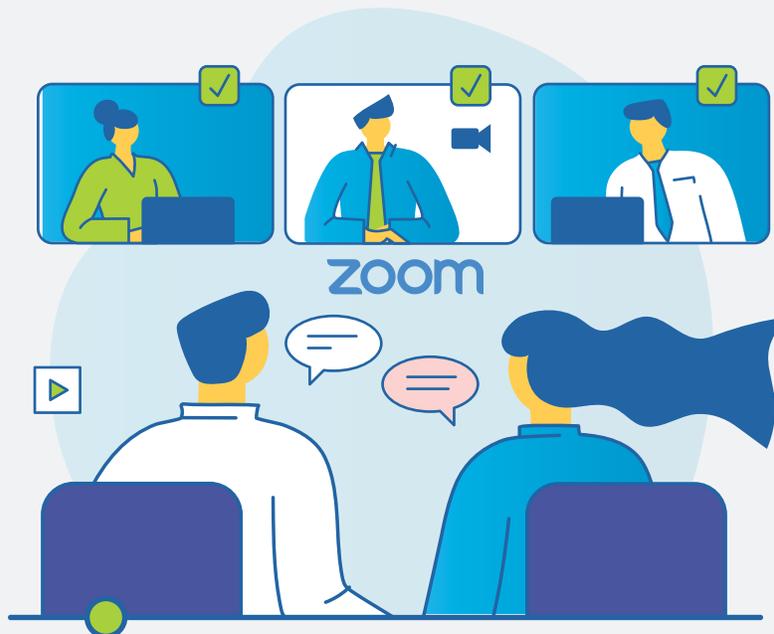




TIPS FOR Successful Zoom Meetings

Zoom is a wonderful videoconferencing tool, with many features that make it great for collaboration. However, if you're working from a location where bandwidth is limited, or if your device has limited computing capacity, performance issues can arise that diminish your experience. **There are several things you can do to avoid this and ensure that Zoom works seamlessly when you participate in a meeting.**



If you're encountering screens that don't refresh quickly, audio that goes in and out, or slow responses when you click on Zoom controls, you can try these things to improve performance.

FIRST, THE BASICS

Zoom's performance depends on two factors:



Bandwidth: your device and your network's ability to send data up/down the wires to/from the internet



Processing capacity: CPU/memory of the device you're using

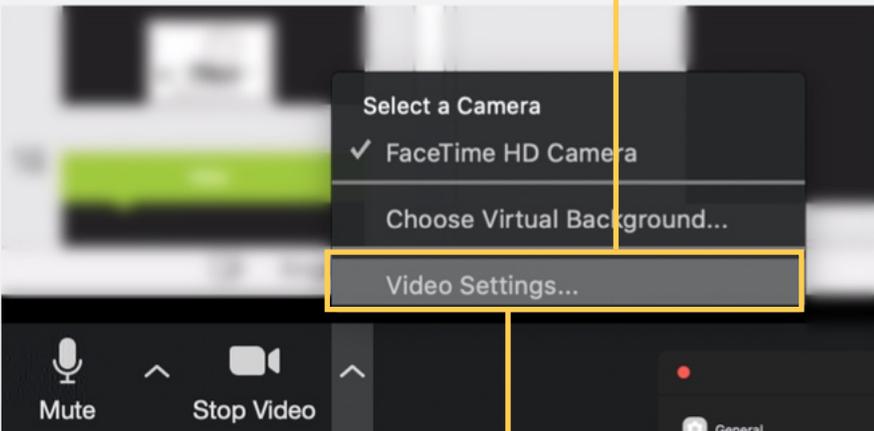
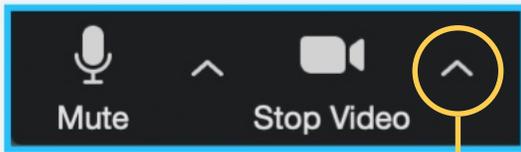
If Zoom is competing with other applications in either area, performance can suffer. So, most of the techniques here involve reducing the amount of data that must go up and down the wire to reduce bandwidth demands and/or eliminating other apps that are competing with Zoom for CPU/memory.

NOW, ON TO THE TIPS

Most people's setup works just fine with Zoom as-is: you fire up Zoom and engage. If you're seeing performance issues (freezes, stuttery audio), here are things to try to give Zoom more bandwidth and computing resources.

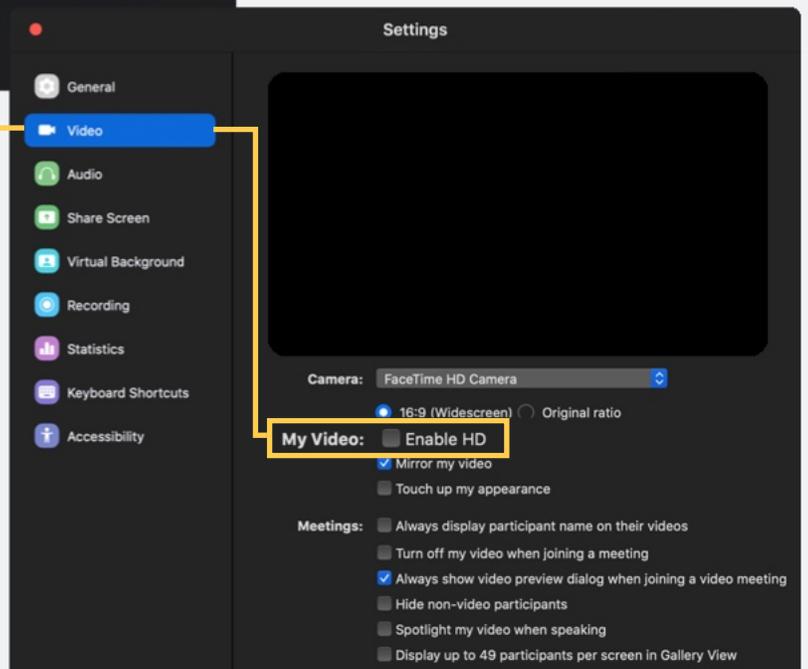
1. Turn off HD.

You can turn HD off, which lessens the amount of data heading up the wire when your video camera is on. Click the arrow next to the Start Video icon at the bottom of the Zoom window,



select "Video Settings..."

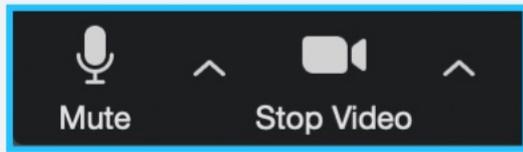
then make sure "Enable HD" is off, by unchecking the box.



2. Stop your webcam video when you don't need it, especially when a screen is being shared.

If your moderator is okay with you doing so, stopping your video when it's not needed reduces the amount of data heading up and down the wire.

To stop your video, click the button “Stop Video” at the bottom of the Zoom window.



If it says “Start Video,” it's already stopped.



3. Close other applications on your device and unneeded tabs on the browser.

If Zoom is competing with other applications for bandwidth or processing time, performance can be impacted. Closing applications you don't need during the meeting (e.g., Skype, email, Word, Excel, Slack, browser, and so on) will help Zoom run better.

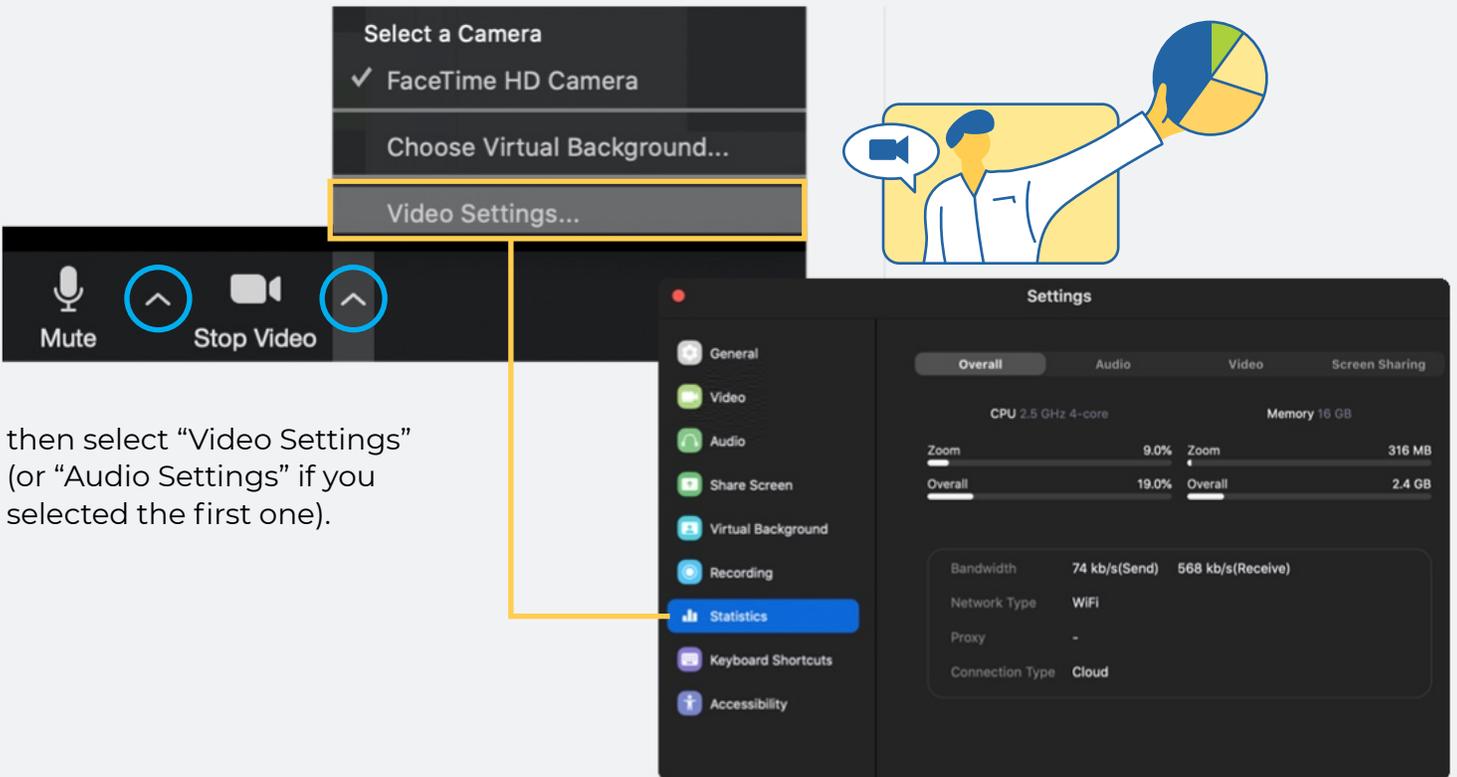
Note that many applications are constantly polling the internet for notifications, updated content, and such—and using network and processing time—even if they're not being used.

Also, **some browser pages routinely query the internet to keep a web page updated**, and each browser window consumes processing cycles as well. Even if you need your browser, close tabs that you don't need while in the meeting and avoid opening others unless needed for an activity.



You can use Zoom’s statistics to figure out what might be interfering with Zoom. Click the arrow next to the audio/video controls (it doesn’t matter which up-arrow you select):

On the Settings panel, click “Statistics,”

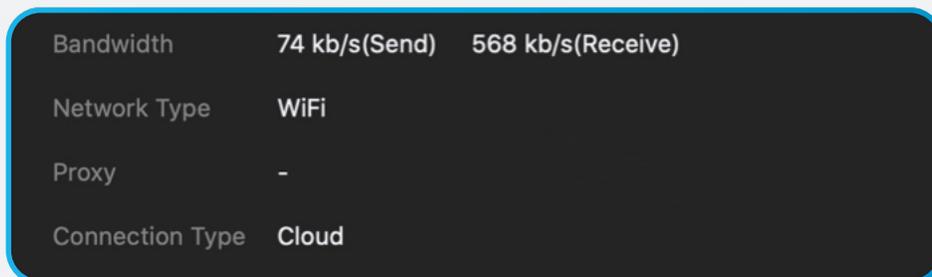


then select “Video Settings” (or “Audio Settings” if you selected the first one).

The CPU meter **shows how much processing power Zoom is using**, and how much all of the applications on your device are using: if the “Overall” rate is high, it means there is a lot of computing activity going on that’s likely affecting Zoom. See if closing applications or browser tabs lowers the CPU.

Same with the memory meter: if there is little memory available, it can affect Zoom.

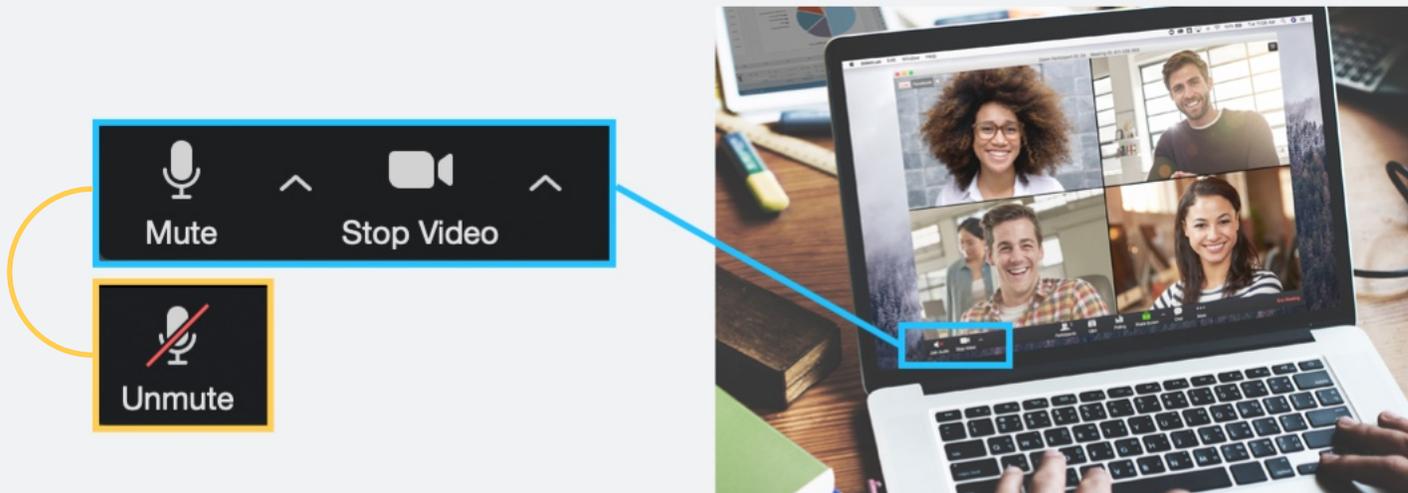
Finally, look at “Bandwidth,”



this measures how much data is currently going up (send) and down (receive) the wire to/from the internet.

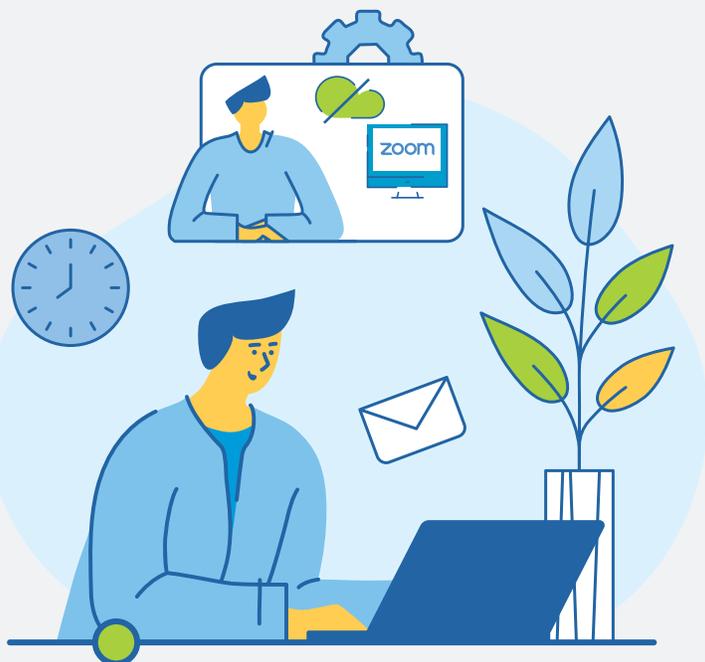
4. Mute your microphone when you're not speaking.

When your microphone is on, Zoom will devote part of your internet connection to an audio stream for you, even if you are not speaking. Mute your microphone when you do not need it, and you will allow Zoom to use your internet connection more effectively. To mute your microphone, click the “Mute” button at the bottom of the Zoom window,



5. Avoid launching processes that compete with Zoom for bandwidth or computing.

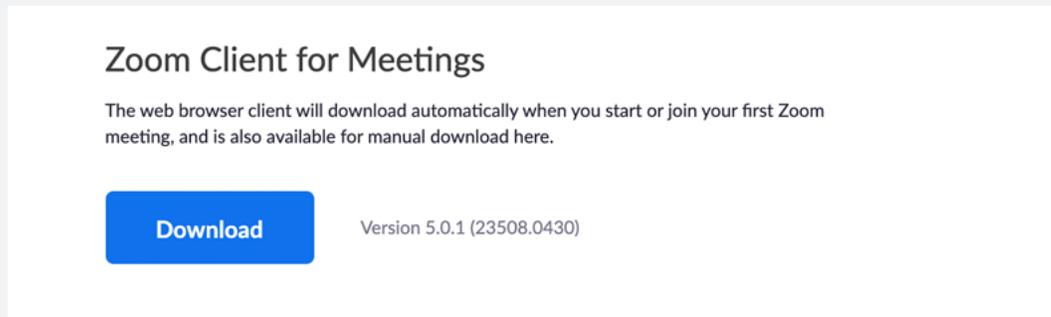
Don't start bandwidth-intensive activities just before, or during, a Zoom meeting. On your device—and as much as possible, on other computers and devices that share your internet connection—avoid these types of activities:



- Large downloads or uploads
- Streaming video (e.g., Netflix, Hulu, YouTube)
- Cloud backups (e.g., Backblaze, iDrive)
- Cloud file synchronizations (e.g., Owncloud, Google Drive File Stream)
- Other high-bandwidth activities

6. Run Zoom as an installed app, not as a web client.

Most people opt to “download and launch Zoom” when they access their first meeting on Zoom, which installs a Zoom app and launches the meeting within it. However, Zoom gives participants the ability to run Zoom within their browser, rather than as a standalone app, to avoid installing it locally. The native Zoom app seems to work better than the browser-based version.



When prompted to “download and run Zoom,” do so: this will install an app on your local device so it runs natively, which may improve the quality of your experience. You can download Zoom from its website (zoom.us) if you want to make sure you have the latest and greatest installed.

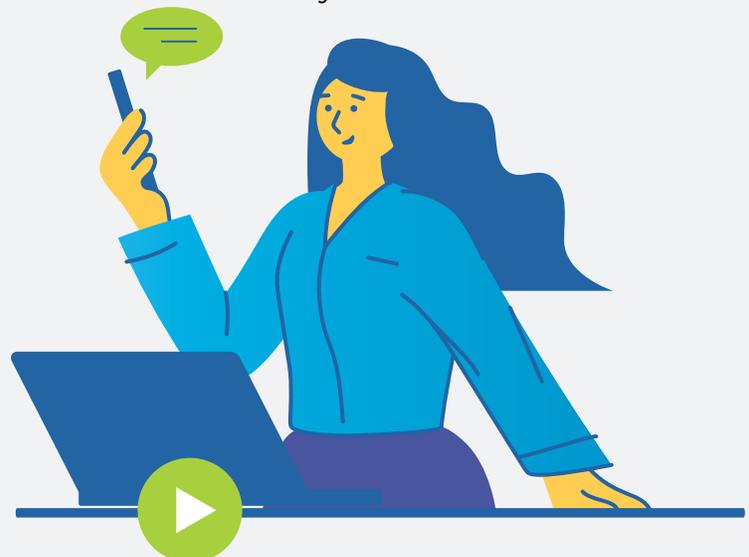
7. Locate your device closer to the Wi-Fi router, or consider using an Ethernet (wired) connection.

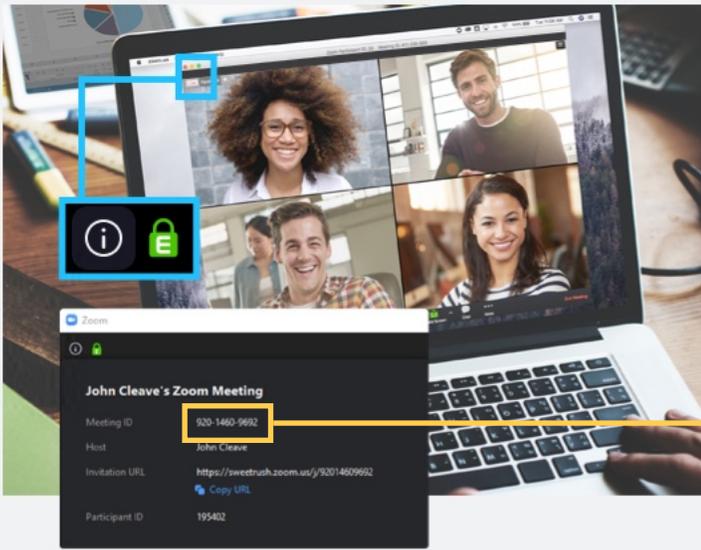
If your device is accessing the internet via Wi-Fi, it may not be your internet connection that’s causing issues, but your Wi-Fi. Setting up somewhere close to the Wi-Fi router (which may be the cable box itself, or a dedicated Wi-Fi router around the house—often a box with short antennas sticking out of it) will allow your device to get a good, solid connection and can help with Zoom’s performance.

If you have an Ethernet connection available (e.g., on the back of your cable box), running an Ethernet cable directly to your device can result in a dramatically improved performance over connecting via Wi-Fi, because the signal in an Ethernet cable is many times faster than that of Wi-Fi.

8. Use your phone for audio and the Zoom app just for visuals.

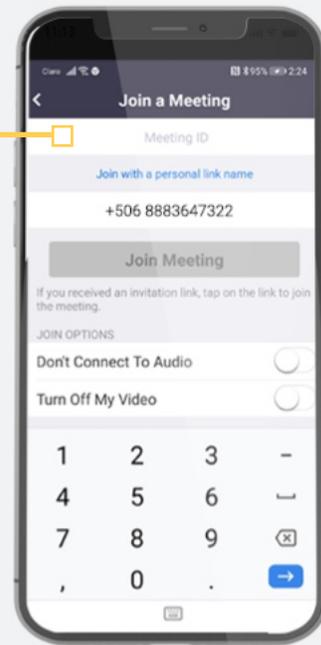
One technique that may help improve your experience is to use your phone for audio, and the Zoom app just to see the screen. This way, you are using the cellular network to handle the audio, and the Zoom app on your device only has to manage the screen sharing, so performance will improve.





To do this, first access the Zoom meeting on the Zoom app (by clicking the link in the invite as you normally do and launching Zoom).

Then, locate a phone number to dial into the meeting from the Zoom invite (**note:** the person arranging the meeting needs to have set it up to allow dialing in; this is the default setting, but if turned off, no numbers are provided).



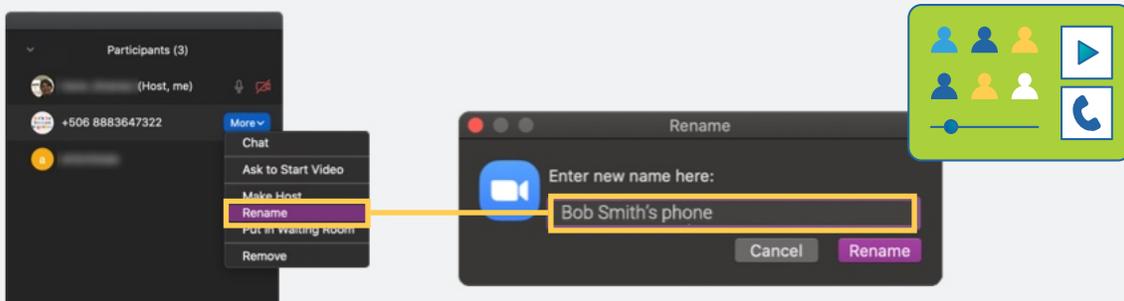
Dial the number on your phone. It prompts you for the Meeting ID.

To retrieve the Meeting ID, go to the top of the Zoom screen and click the **i** icon.

This shows you the Meeting ID and your Participant ID, which you'll need next.

On your phone, enter the Meeting ID and press the pound (#) key. It then prompts you to enter the Participant ID: enter it and click pound again. Your phone will then be associated with your Zoom persona and you're good to go.

Note: If you don't enter a Participant ID and just click pound when you're prompted to enter it, you will gain access, but it will show your phone as a separate person in the participant list, and your phone number as its name. **To eliminate confusion, go onto the Zoom app and rename your second participant (your dialed-in phone) so everyone knows that participant is also you.**



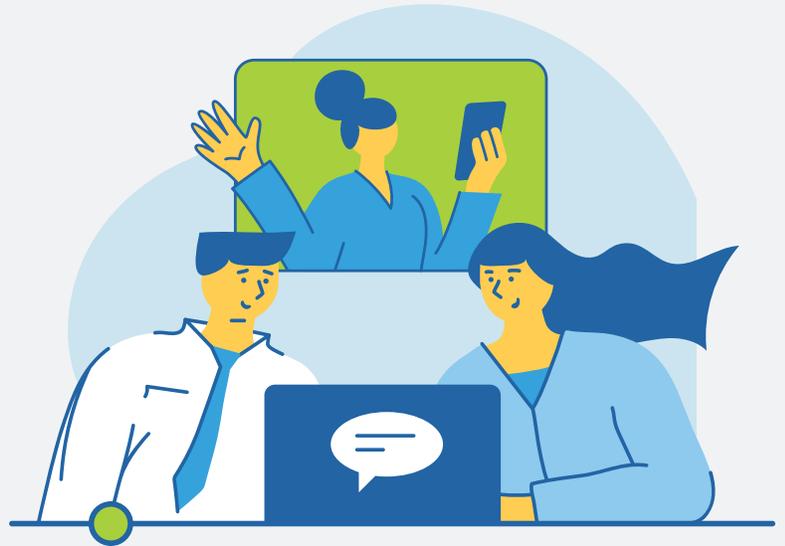
To do this, click the ellipsis on your phone's card on the Zoom screen, then select "Rename". Then enter something like "Bob Smith's phone" so everyone knows what it is.

9. If you're still having problems, let the moderator of your Zoom meeting know.

If you continue to encounter issues with audio and sluggish response, let the person (or people) running your session know. **The “Chat” function is useful for this, such as, “Sorry, I’m having some audio issues.” The meeting’s moderator might be able to accommodate your slow connection,** say by limiting screen sharing when unneeded (which consumes processing time and bandwidth), or by performing tasks for you (such as posting to a board or chat so you can at least read important notices).

And don't stress out, it's not the end of the world!

One of the realities of the virtual world we live in is that technical hiccups are going to happen, even to the most tech-savvy of us. We all run into it, so there's no reason to feel guilty about it. When the hiccup occurs, the tips above may help you to get back to a place where you are focused on your meeting, and not on your hardware or connection.



HAVE ANOTHER TIP?

Email it to John Cleave, eLearning Technologist at john.cleave@sweetrush.com, and we'll add it to the list.

Would your peers and colleagues find these tips helpful?

Please feel free to share with them!



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