



Optimizing Performance of Zoom in Low Bandwidth Environments

With many people returning to work and school, organizations across the world are continuing to leverage Zoom to collaborate with on-site, remote, and hybrid colleagues.

However, as this shift to in-person operations takes place, organizations are experiencing higher volumes of traffic over their networks, reducing the bandwidth available for video communications. This lack of bandwidth can quickly become a bottleneck that slows real-time communication and collaboration, resulting in poor audio and video quality, and a less effective meeting experience.

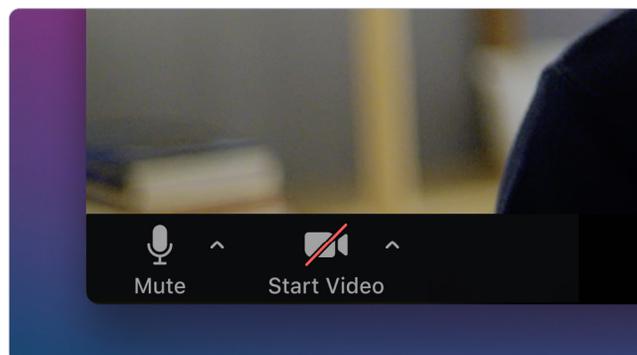
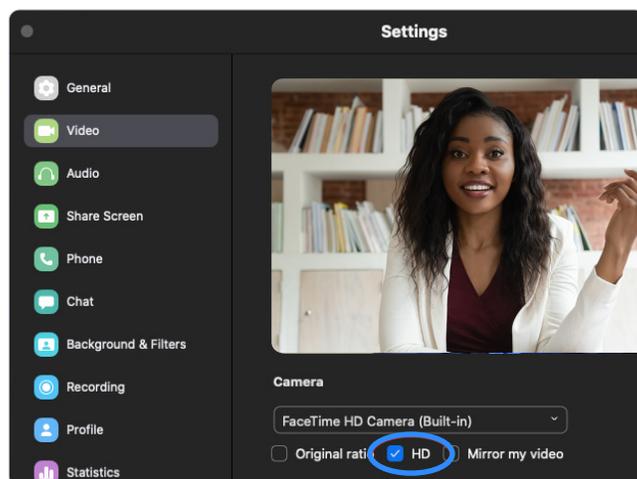
The good news is that Zoom is designed to work in low-bandwidth environments. When you host or join a meeting, the Zoom client will run a number of checks, including available bandwidth and quality-of-service telemetry, to enable a stable, consistent connection while prioritizing audio and screen sharing over video.

Here are some tips for optimizing your meeting experience, even in low-bandwidth situations.

For end-users

If you are experiencing poor performance caused by bandwidth congestion, you can try manually reducing the amount of bandwidth required to run Zoom Meetings by:

- **Disabling HD video:** Simply go to Settings, click on the Video tab, and uncheck the box for HD video.
- **Disabling video feed:** Although video is a key feature of Zoom Meetings, you can turn off your video to reduce the amount of bandwidth used for those situations where clear audio is a priority. Simply click on the video icon and make sure your 'Start Video' button is crossed out to turn off video.



For organizations and IT professionals

Organizations may want to configure their network settings to optimize traffic and ensure reliable performance of their Zoom Meetings. Here are some of our resources and recommendations to help you optimize and maintain traffic:

- **Ensure correct network configuration:** Ensure that your network is configured correctly for an optimal experience with our [recommended network firewall and proxy configurations](#).
- **Understand the bandwidth usage for a meeting:** We've documented the [recommended bandwidth requirements](#) to allow administrators to calculate the traffic generated by Zoom on their network.
- **Use the correct direct firewall configuration:** User Datagram Protocol (UDP) is always the preferred configuration when leveraging real-time collaboration tools. Our platform can fall back to TCP if routing through a Web Proxy is required, but this proxy can also create a connection bottleneck.
- **Enable peer-to-peer connections:** This allows users to [directly connect to each other](#) on the local area network while in a two-person meeting and bypass the internet connection.
- **Manage VPN and split tunneling:** Zoom has tools that can bypass routing traffic directly via the enterprise firewall offering dedicated bandwidth to users.

Add a Bandwidth Rule

The minimum bandwidth for video meeting is 800 kbps. [Learn more](#) from the support document.

Name

+ Add description

IP range

Upstream
 Kbps

Downstream (Optional)
 Kbps

Exclusion Range

[More Options](#) ▾

At this time, to enable this feature, please contact Zoom Support. Zoom will be making a change to surface this feature on all accounts in the near future.

Resources

Zoom Firewall and Network Requirements

<https://support.zoom.us/hc/en-us/articles/201362683-Network-firewall-or-proxy-server-settings-for-Zoom>

Configuring Zoom Group HD

<https://support.zoom.us/hc/en-us/articles/207347086-Group-HD>

Zoom VPN Split Tunneling recommendations

<https://support.zoom.us/hc/en-us/articles/360053610731-VPN-Split-Tunneling-Recommendations>

Broadband Internet Technical Advisory Group report

https://www.bitag.org/documents/bitag_report.pdf

If further support is needed, Zoom offers an Advanced Professional Service. Contact your Zoom Solution Engineer or your Account Executive.