

## Bandwidth Requirements for Remote Office 365 User

- BLUF: The minimum necessary bandwidth for a quality group video call: 500 kbps
- Most residential internet providers can provide sufficient bandwidth for synchronous, live remote instruction
- MS Teams
  - Designed to give the best audio, video, and content sharing experience regardless of network conditions
  - When bandwidth is insufficient, Teams prioritizes audio quality over video quality
  - Where bandwidth *isn't* limited, Teams optimizes media quality, including up to 1080p video resolution, up to 30fps for video and 15fps for content, and high-fidelity audio.
  - The table below describes how Teams uses bandwidth. Teams is always conservative on bandwidth utilization and can deliver HD video quality in under 1.2Mbps. The actual bandwidth consumption in each audio/video call or meeting will vary based on several factors, such as video layout, video resolution, and video frames per second. When more bandwidth is available, quality and usage will increase to deliver the best experience.

<u>Bandwidth(up/down)</u>	<u>MS Teams Service Delivery</u>
30 kbps	Peer-to-peer audio calling
130 kbps	Peer-to-peer audio calling and screen sharing
500 kbps	Peer-to-peer quality video calling 360p at 30fps
1.2 Mbps	Peer-to-peer HD quality video calling with resolution of HD 720p at 30fps
1.5 Mbps	Peer-to-peer HD quality video calling with resolution of HD 1080p at 30fps
500kbps/1Mbps	Group Video calling (USMA Remote Instruction Requirement)
1Mbps/2Mbps	HD Group Video calling (540p videos on 1080p screen)

<u>Residential Bandwidth (up/down)</u>	<u>Mode of Delivery</u>
50/50 Mbps	Fiber (up to 940 Mbps upload)
4/100 Mbps	Cable (up to 100 Mbps upload)
3/25 Mbps	Satellite (up to 6 Mbps upload)
3/10 Mbps	DSL (up to 10 Mbps upload)
100kbps – 1 Mbps	Cellular (May not meet the Group Video calling bandwidth requirement without a strong signal and 4G)
56.6 Kbps	Dial up (* Will not meet Group Video calling bandwidth requirement)