



## Broadband Speed Guide

Compare typical online activities with the minimum download speed (Megabits per second, or Mbps) needed for adequate performance for each application. Additional speed may enhance performance. Speeds are based on running one activity at a time.

For household broadband needs, use our [Household Broadband Guide](#) to compare minimum Mbps needs for light, moderate and high household use with one, two, three or four devices at a time (such as a laptop, tablet or game console).

For more information on broadband speeds, see our [Measuring Broadband America report](#).

These numbers are rough guidelines and are not based on surveys or experiments conducted by the FCC. You should use your best judgment when choosing your broadband service.

Activity	Minimum Download Speed (Mbps)
<b>General Usage</b>	
General Browsing and Email	1
Streaming Online Radio	Less than 0.5
VoIP Calls	Less than 0.5
Student	5 - 25
Telecommuting	5 - 25
File Downloading	10
Social Media	1
<b>Watching Video</b>	
Streaming Standard Definition Video	3 - 4
Streaming High Definition (HD) Video	5 - 8
Streaming Ultra HD 4K Video	25



## Video Conferencing

Standard Personal Video Call (e.g., Skype)	1
HD Personal Video Call (e.g., Skype)	1.5
HD Video Teleconferencing	6

## Gaming

Game Console Connecting to the Internet	3
Online Multiplayer	4

### Consumer Help Center

For more information on consumer issues, visit the FCC's Consumer Help Center at [www.fcc.gov/consumers](http://www.fcc.gov/consumers).

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