



**Vidyo**<sup>™</sup>  
Personal Telepresence

**TECHNICAL NOTE**  
**Bandwidth Options for**  
**VidyoConferencing**

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## Introduction

The VidyoConferencing<sup>SM</sup> architecture has been designed so that if you have a laptop, desktop or mobile device, you can easily participate in a multipoint, low latency, HD quality video conference. Whether you work in a small business, at a branch or corporate office, or are a home-based teleworker, you are assured of participating in a Vidyo<sup>TM</sup> call, by accessing any IP network, including the Internet, through a wired or wireless network connection.

One of the many VidyoConferencing benefits is that it scales the video streams dynamically throughout a conference to adapt to available bandwidth and processing power of each endpoint. Since Vidyo's solution doesn't require an expensive, dedicated QoS network, the business owner or IT person has the flexibility to choose a variety of bandwidth service and grade options for IP network connectivity.

## Bandwidth Considerations

There are several factors to consider when evaluating what bandwidth service your company should invest in, and the decision may vary from one office to the next. While the solution performs well even below 500Kbps, we recommend planning for bandwidth to support an HD telepresence experience which starts around 768Kbps. Consider the following questions in the context of the location requiring bandwidth to provide guidance on what to contemplate for your VidyoConferencing service:

- 1) Is VidyoConferencing mission critical at the location requiring bandwidth?
- 2) Does the VidyoRouter<sup>TM</sup> reside at your location?
- 3) How many people will be impacted if your network goes down at the location requiring bandwidth?

If you answered "No" to questions 1 and 2, and very few people would be impacted if you lose network connectivity, a basic residential, small business DSL or cable service package may be suitable for your needs. Since this type of service does not offer high reliability, it is important to consider back up plans that enable connectivity to Vidyo calls, such as air card-equipped mobile devices or laptops utilizing a Wi-Fi hot spot. Alternatively, you can always join a Vidyo call as an audio-only participant with subscription to the VidyoVoice<sup>TM</sup> service.

If you answered "Yes" to questions 1 or 2, and many people would be impacted if you lose network connectivity, we recommend a more reliable business class service like T3, OC-3 or Gigabit Ethernet from a service provider. Utilizing the services of a broker who has access to multiple carriers can save time and result in cost savings by matching the bandwidth choice to your needs.

If a branch or satellite office location loses network connectivity and the VidyoRouter isn't on the premises, but VidyoConferencing is mission-critical to the employees who work there, then you should consider a mid-ranged solution like 100MB Metro Ethernet business grade service with an optional guaranteed network uptime service package. The following diagram provides a summary of recommended bandwidth and service option grades.

**Cost, Bandwidth and Service Options**

	<b>Low Cost</b>	<b>Mid-Range Cost</b>	<b>Premium Cost</b>
<b>Service</b>	Residential or Small Business DSL or Cable Service  <i>and/or</i>  3G or 4G wireless air card or Wi-Fi hot spots as backup	Business Grade 100MB Metro Ethernet best effort from a carrier or ISP-based Service	Carrier-grade business service provider with a Service-Level Agreement for five 9s of uptime & reliability
<b>Bandwidth Recommended</b>	At least 2.0MB downstream and 768KB upstream per concurrent user	At least 2.0MB downstream and 768KB upstream per concurrent user	Consider options such as T3, OC-3 or GigE  Utilize a bandwidth broker, such as <a href="#">WNC Consultants</a> , to find the right solution in your region

If having the VidyoRouter on site is the only factor standing between a location and low cost residential bandwidth, you may want to consider having the VidyoRouter hosted in a co-location facility. Vidyo has established a relationship with a large co-location and bandwidth provider to offer these services to Vidyo customers at very competitive rates. To discuss your VidyoConferencing deployment and bandwidth options or having the VidyoRouter hosted in a co-location facility please contact [support@vidyo.com](mailto:support@vidyo.com).