

Configurations listed from most reliable to least

Specialized Videoconferencing Hardware Device. (ie. codec)	Hard wired Ethernet connection.
Dedicated desktop computer running only OS and Vidyo	Hard wired Ethernet connection.
Dedicated laptop computer running only OS and Vidyo	Hard wired Ethernet connection.
Desktop computer running Vidyo in addition to other programs.	Hard wired Ethernet connection.
Laptop computer running Vidyo in addition to other programs.	Hard wired Ethernet connection.
Laptop computer running Vidyo.	Wi-Fi Connection
Mobile device (Tablet / Phone)	Wi-Fi Connection
Mobile device (Tablet / Phone)	Cellular Network Connection

Hardware

Solution Grade	Type	Description	Support/Limitations		
Best	Specialized Vidyo Hardware	Vidyo HD40 with Sony HD7 PTZ 10x Camera (Vendor Quotes Available Upon Request)	Vendor Warranty Package including: <ul style="list-style-type: none"> Advanced Parts Replacement Helpdesk Support (24/7) Software Updates & Upgrades MDTV Remote Access Six Month Vendor Warranty MDTV Remote access		
Better	Specialized Videoconferencing Hardware (i.e. codec)	Cisco C20 Codec with 12X Pan/Tilt Camera and 22" HDTV Monitor (Vendor Quotes Available Upon Request)	MDTV Remote Access Six Month Vendor Warranty MDTV Remote access		
Good	Desktop/Laptop Computers	<table border="1"> <tr> <td> <u>PC Desktops</u> Dell OptiPlex 9010 with Windows 7 Professional <hr/> <u>PC Laptops:</u> Lenovo X240 Series with Windows 7 Professional </td> <td> <u>Mac Desktops</u> iMac Mac Mini <hr/> <u>Mac Laptop:</u> Macbook Pro </td> </tr> </table>	<u>PC Desktops</u> Dell OptiPlex 9010 with Windows 7 Professional <hr/> <u>PC Laptops:</u> Lenovo X240 Series with Windows 7 Professional	<u>Mac Desktops</u> iMac Mac Mini <hr/> <u>Mac Laptop:</u> Macbook Pro	<p><i>Current Supported Windows Operating Systems: Windows 7 or Windows 8 Professional (Not Windows 8 Home).</i></p> <p>Does not include MDTV Remote Access</p> <p>Must be supported through your own IT Helpdesk staff. Please follow most reliable configuration listing above.</p> <p>Please see webcam and microphone add-on recommendations below</p>
<u>PC Desktops</u> Dell OptiPlex 9010 with Windows 7 Professional <hr/> <u>PC Laptops:</u> Lenovo X240 Series with Windows 7 Professional	<u>Mac Desktops</u> iMac Mac Mini <hr/> <u>Mac Laptop:</u> Macbook Pro				
Supported	Mobile Device	<table border="1"> <tr> <td> Mac iPhone: 5, 4S, 4 iPod Touch: 5th and 4th generation iPad: 4th, 3rd, 2nd, iPad Mini </td> <td> Android Samsung or Kindle Minimum requirements for an Android device: 1GHz single core ARMv7 processor 512 RAM OS version 2.2 and above Speakers Wireless connectivity Screen resolution of 480x800 pixels Camera, microphone Access to Google Play Store </td> </tr> </table>	Mac iPhone: 5, 4S, 4 iPod Touch: 5 th and 4 th generation iPad: 4 th , 3 rd , 2 nd , iPad Mini	Android Samsung or Kindle Minimum requirements for an Android device: 1GHz single core ARMv7 processor 512 RAM OS version 2.2 and above Speakers Wireless connectivity Screen resolution of 480x800 pixels Camera, microphone Access to Google Play Store	<p>Not recommended for presenting patients.</p> <p>Does not include MDTV Remote Access</p> <p>Must be supported through your own IT Helpdesk staff. Please follow most reliable configuration listing above.</p> <p>Please see microphone add-on recommendations below</p>
Mac iPhone: 5, 4S, 4 iPod Touch: 5 th and 4 th generation iPad: 4 th , 3 rd , 2 nd , iPad Mini	Android Samsung or Kindle Minimum requirements for an Android device: 1GHz single core ARMv7 processor 512 RAM OS version 2.2 and above Speakers Wireless connectivity Screen resolution of 480x800 pixels Camera, microphone Access to Google Play Store				

1st Choice: Desktop computer on a wired connection with a webcam and usb conference microphone.

2nd Choice: A laptop computer on a wired or network with a webcam and usb conference microphone

3rd Choice: A laptop computer on a wireless network(wifi) with a webcam and a usb conference microphone

Add-On's

Application	Webcams	Microphones
Clinical	Logitech HD USB PTZ Video Conference Camera	If purchasing Logitech HD USB PTZ Video Conference Camera you do not need to purchase an additional microphone
Desktop Computer	Logitech HD Pro Webcam C920	Phoenix MT202 Duet PCS (Desktop, Laptop)
Conference Room	Logitech BCC 950 ConferenceCam	Phoenix MT301 Quattro3

Network Information and Best Practices

Port List & Network Requirements

Below are the ports the client needs to access.

- tcp 1720 H323 setup
- tcp/udp 5060 SIP
- tcp/udp 5061 SIP TLS
- tcp 443 HTTPS
- tcp 80 HTTP

Vidyo

- tcp 17992 EMCP
- TCP Port 17990 (SCIP) and UDP Ports 50,000 – 65,535 (RTP/sRTP/RTCP) bidirectional to the Vidyo routers

Note about UDP timeouts on firewalls:

Some Firewalls have a UDP default timeout. On the Cisco PIX Firewall, for example, if the UDP timeout is not changed then the call will drop in exactly two minutes and the Vidyo client(s) would have to reconnect. You may want to contact your network admin to check this setting and increase the timeout.

Connection Speed & Network Testing

To perform speed test go to: <http://speedtest.hsc.wvu.edu>

Video Conferencing Target Values	GOOD	FAIR
Speed UP/DOWN	2000 kbps and above	768 kbps - 2000 kbps
Latency	1 - 150 ms latency	150 - 400 ms latency
Jitter	1 - 20 ms end-to-end	30 - 50 ms end-to-end
Loss	1% random packet loss	2 - 5% random packet loss