



Video Conferencing - System Requirements

Personal Computer Operating Systems

Our Desktop Videoconferencing platform runs on the following operating systems provided they fully support Java version 1.5 or higher. We recommend Oracle's version of Java.

- Windows 7 or newer
- Mac OS 10.8.5 or higher (excluding PowerPC based systems)
- Linux 3-4 years old, version 7 or higher (RHEL7/SLC7/centos7/debian7/etc).

Personal Computer Microprocessors

Our platform runs on the Intel Core(tm) line of microprocessors starting with the Core(tm) Duo or later. The Core(tm) Duo was introduced in 2006 and Intel has continued to expand the user base on the Core(tm) i3, i5 and i7 microprocessors.

It will run on AMD processors of equivalent power. Specifically excluded from the full Redback experience are Centrino and Atom processors which do not have the power to encode and decode multiple, simultaneous video streams. Users will have a lesser experience which is sized to fit the reduced capacity of these microprocessors.

Personal Computer RAM

You need to have a minimum of 1GB of RAM available for this platform. Closing unnecessary applications will improve the performance on machines with limited RAM.

Personal Computer Software

You will need to have Java version 1.5 or later installed on your PC. The current version of Oracle's Java can be downloaded for free at www.java.com.

Your graphics card should support OpenGL v1.5 or later. This is not a difficult requirement for modern machines as this version is more than 10 years old, but very old or very weak machines. (i.e. netbooks) might not comply with this requirement.

Cameras

Any webcam with VGA output up through 1080p will work. If your camera uses HDMI output ports (typical on camcorders) you will need a BlackMagic graphics card (Intensity Pro or Intensity Shuttle) to connect to your computer.

Most notebooks with built in cameras will work just fine. Our platform auto detects available cameras and will intelligently select the appropriate camera, however, the user may desire to select another camera option from the camera pull down menu which is found on the arrow in the bottom right hand corner of the camera icon.

Microphones

Any microphone that connects to your PC should work. If others have a hard time hearing you it means that either your microphone gain is too low or you have an impedance mismatch between your computer's audio line in and your microphone. To increase your microphone's gain go to your system sound menu and increase the microphone's volume. If this doesn't increase your volume to others, try to boost your microphone by selecting the boost check box in Windows' sound system menu.

There is no equivalent boost mechanism for the Macintosh. If this does not increase your output volume to others you likely have an impedance mismatch between your microphone and computer. Consult your computer and microphone documentation for the appropriate impedance specifications. The following external microphone/speaker have noise cancelling capabilities and have been successfully tested with Redback: Solo, Duet, Quattro2 and Quattro3 from Phoenix, the Plantronics 420M (especially for Linux Operating Systems) and the Plantronics Calisto P820. Many other external room sound devices have been used successfully by Redback customers. This list is by no means comprehensive.

Redback has software based echo cancellation and noise reduction built into the service. Some computer configurations can over power this feature if your speakers are too close to the microphone. Adjusting speaker direction or volume can correct the situation. Note: the user who doesn't hear an echo is the one who needs to adjust their speaker position or volume.

Internet Bandwidth

The Redback video conferencing platform will scale video quality according to bandwidth availability. Audio will take precedence over video in low bandwidth situations meaning that video may disappear completely but audio will remain. The recommended internet speeds for optimal performance are 500 kbps upload, and 5 mbps download. Note video conferences are possible in lower bandwidth.

Video conferences will be supported on Wi-Fi however users may find quality degradation as other devices share the Wi-Fi connection and consume available bandwidth. Users should connect where possible to a hardwired connection to assure a faster connection.

Ports and IP's

Firewall Rules

For organisations that have very tight network security for their firewalls it may be necessary to open your firewall on your router. This is very helpful in the case where one or more remote participants are in a strictly controlled environment such as a hotel or coffee shop where they cannot alter the firewall policy and have to use generally available ports for Internet access. This feature is selectable by the organisation who is hosting the server. See your Redback account manager for more details.

The firewall will need the following ports opened for the client's machine:

Ports

The following ports will be required to be opened to connect to RB Video -

- Browser and WebRTC
- 80/TCP
- 443/TCP
- 40000-49999/UDP
- SIP Endpoints
- 5060/TCP
- 5061/TCP
- 40000-49999/UDP

- H.323 Endpoints
- 1719/UDP
- 1720/TCP
- 33000-39999/TCP
- 40000-49999/UDP
- Skype for Business

- 80/TCP
- 5061/TCP
- 40000-49999/UDP
- 40000-49999/TCP

This ***should*** work for traffic however, all environments are different and they might push media sessions into higher port ranges that are still locked off. We can't control this but we can troubleshoot the issue when it arises (rarely)

Limiting traffic to specific IPs

When possible please use our FQDN for firewall rules- inviewuc.com.au

For Browser/WebRTC

Our FQDN inviewuc.com.au

116.240.17.146

116.240.17.147

Our current IP list-

54.79.21.210
54.64.235.159
52.63.46.13
52.62.68.184
52.65.49.52
13.55.213.231
13.55.120.80
13.238.85.204
13.236.139.228
13.210.118.140
116.240.16.178

There is potential for this list to change. Our bridging system uses a load balancer which will direct incoming calls to different conferencing nodes depending on traffic. These nodes have the possibility of changing in the future and may require updating your firewall rules.

Mobile Devices Operating Systems

Redback runs on the Android Operating System version 2.3.X Gingerbread or newer and iOS version iOS5 or newer.

Android Requirements

Redback runs on Android 2.3.1 Gingerbread (API level 9) or later. We recommend using a device with an ARM7 dual core processor or better with screen resolution of 1280×800 and a connection speed of 1Mb/s download and 500 kb/s upload (for bidirectional audio and video). Additionally, a headset is suggested for devices running Android versions below 3.0. Suboptimal performance can be expected on any device with lower capabilities.

iOS Requirements

It is recommended to use iPad2 and iPhone 4S with a connection speed of 1 Mb/s download and 500 kb/s upload (for bidirectional audio and video). Suboptimal performance can be expected on any device with lower capabilities.