

Remote Interpreting Guide for Courts and Court Staff

National Center for State Courts
Language Access Services Section

Equipment and Connectivity Required for Interpreting via Video Conferencing System

A wide array of technical components that support evidence presentation, remote site interactions, language interpreting and audio enhancement is required. The components needed for a video conferencing system include:

RI via Video Conferencing System		
Courtroom Equipment	Interpreter Equipment	Connection
<ul style="list-style-type: none"> ● Camera or webcam 	<ul style="list-style-type: none"> ● Camera or webcam 	<ul style="list-style-type: none"> ● ISDN or IP which contains the required CODEC
<ul style="list-style-type: none"> ● Computer, monitor, television or projector with related software 	<ul style="list-style-type: none"> ● Desktop or laptop computer with videoconferencing equipment and related software 	<ul style="list-style-type: none"> ● Integrated cabling system
<ul style="list-style-type: none"> ● Microphones, CD/DVD player 	<ul style="list-style-type: none"> ● Microphone 	<ul style="list-style-type: none"> ● High-speed broadband internet
<ul style="list-style-type: none"> ● Loudspeakers 	<ul style="list-style-type: none"> ● Headset 	
<ul style="list-style-type: none"> ● Analog or digital network, LAN or internet 	<ul style="list-style-type: none"> ● High-speed broadband internet 	

Minimum bandwidth requirements differ depending upon the type and model of camera being used in each location, compression ratio being used, and the video format (720p or 1080p) desired. Refer to the manufacturer’s documentation for specific bandwidth requirements. It is recommended that the download and upload speeds are equal for smooth video transmission.

Recommended Minimum Equipment Specifications

Refer to video equipment manufacturer for specific requirements.

RI via Video Conferencing System		
Computer	Camera or Webcam	Connection
<ul style="list-style-type: none"> ● Windows® 7 (32-bit or 64-bit) 	<ul style="list-style-type: none"> ● Full HD 1080P 30fps 	<ul style="list-style-type: none"> ● 2 Mbps upload/download for 720p
<ul style="list-style-type: none"> ● i5 Intel or comparable processor 	<ul style="list-style-type: none"> ● H.264 Video Compression format 	<ul style="list-style-type: none"> ● 3 Mbps upload/download for

RI via Video Conferencing System		
Computer	Camera or Webcam	Connection
		1080p (See note below)
<ul style="list-style-type: none"> ● 4 GB RAM ● USB 2.0 port 		

Many environmental factors must be considered when employing video across the internet. Download and upload speeds in a courthouse may fluctuate drastically depending on the available bandwidth across the network, the number of users on the network and the type and amount of streaming data being uploaded or downloaded. This fact should be taken into account when determining minimum available bandwidth requirements. Wireless internet is not recommended for video transmission. It is important to include local IT in the decision making process in order to get the best equipment that the local network can support in order to achieve satisfactory video performance.

Specialized Video Remote Interpreting (VRI) Systems

Description: VRI uses video conferencing technology over dedicated lines offering a high-speed, wide-bandwidth video connection that delivers high-quality video images that allow for sign and spoken language interpreting services. The technology is similar to a different service called Video Relay Service (VRS) which is a free telephone relay service using video technology to allow Deaf and hard of hearing persons to make and receive phone calls using ASL. With VRS, the Deaf and hearing participants are in separate locations.¹⁷

VRS is not appropriate for court proceedings and is not permitted by the Federal Communication Commission (FCC) as VRS interpreters only identify themselves by a number and VRS interpreters typically do not possess any legal qualifications.

How it Works: VRI uses video conferencing equipment over high speed broadband connections or ISDN lines carrying both video and audio messages. Equipment is paired with wired or wireless connections. VRI sessions can be conducted via internet, intranet or ISDN.¹⁸ Typically, the LEP person and English speakers are located together at one location (courtroom) with a web camera (or other technology) while the interpreter works from a separate location.

Equipment and Connectivity Required for Interpreting via Specialized VRI System

RI via Specialized VRI System		
Courtroom Equipment	Interpreter Equipment	Connection
<ul style="list-style-type: none"> • Desktop or laptop computer with appropriate software 	<ul style="list-style-type: none"> • Desktop or laptop computer with appropriate software 	<ul style="list-style-type: none"> • High-speed broadband internet access such as T1, DSL, SDSL, ISDN (3 Mbps upload/download recommended)
<ul style="list-style-type: none"> • Webcam 	<ul style="list-style-type: none"> • Webcam 	
<ul style="list-style-type: none"> • External speakers 	<ul style="list-style-type: none"> • Headphones or integrated speakers 	
<ul style="list-style-type: none"> • Integrated software 	<ul style="list-style-type: none"> • Software 	

¹⁷Registry of Interpreters for the Deaf (RID), *Video Relay Service Interpreting Standard Practice Paper*, 2007. VRS services are regulated by the Federal Communications Commission (FCC) which sets standards that VRS companies and their interpreters must follow. VRS is an offshoot of traditional Telecommunications Relay Service (TRS) or text-based relay services.

¹⁸Registry of Interpreters for the Deaf (RID), *Video Remote Interpreting Standard Practice Paper*, Video Interpreting Task Force, 2010.

Minimum technology requirements for VRI that will also meet ASL requirements

- 1. Video screen:** A flat-panel, LCD computer monitor, with a minimum screen size of 17 inches (measured diagonally from corner to corner) for providers and 19 inches (measured diagonally) for courtrooms. Minimum device resolution capability of 1280 x 720 pixels.
- 2. Video camera:** Minimum video resolution of 720p (1280 x 720 pixels, progressive, at 30 frames per second); ideal resolution of 1080p30, 1080p50, or 1080p60 (1920 x 1080 pixels, progressive, at 30, 50, or 60 frames per second, respectively).
- 3. Endpoint bandwidth:** Every endpoint must support at least 3Mbps upload/download speed for video calling.
- 4. Computer:** Macintosh or PC with a minimum processor speed of 2 ghz, at least 3 gb of physical RAM, 300 gb or larger hard drive with at least 5 gb free, a dedicated video card, and USB 2.0 or higher. The computer should be dedicated to VRI during an interpreting event if you are operating a software endpoint.
- 5. QoS:** A connection to a WAN circuit with Quality of Service (QoS) settings that take into account the potential number of concurrent video calls over the WAN and the quality settings for each call. In addition to the bandwidth reserved by QoS, an adequate amount of bandwidth should be available to support other operations, such as e-mail and web traffic, etc.
- 6. Encryption:** Every endpoint used for VRI, regardless of type (room based all-inclusive unit or software/computer-based) must support encrypted transmissions, preferably using 256-bit Advanced Encryption Standard (AES-256).
- 7. Firewall opening:** The capability to safely traverse court firewalls without compromising security.
- 8. URI capability:** All endpoints should be able to place and receive video calls using Uniform Resource Identifiers (URIs).