

Creating Omnipresence Through Video Technology

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Although videoconferencing and video streaming have been around for years, the technologies were typically not available except to those with deep pockets and a tolerance for technical complexity. However, over the past few years a confluence of events has rapidly driven the adoption of these technologies as a viable alternative to travel.

These factors include globalization, the ubiquity of broadband, terrorism and the increasing difficulty of air travel. Along with the increased value of face-to-face communication in an Internet-based economy, the trend has driven every level of the profession to integrate video technologies into the practice of law.

Videoconferencing

Until recently, firms and law departments have primarily used videoconferencing for internal management, administrative communication between offices and interviewing job candidates. Videoconferencing has also been used to reduce international travel, confer with clients or as a “back up” to

travel when scheduling changes or transportation issues become unavoidable.

As costs have lowered and quality continues to improve, even attorneys in smaller firms have begun to integrate videoconferencing into their practice. It is now common for attorneys to use videoconferencing to depose witnesses, consult with experts, co-counsel and clients and even run settlement conferences and mediations remotely, especially when multiple, far-flung parties need to come together on short notice.

The spread of videoconferencing throughout the legal profession has not been limited exclusively to law firms and law departments. Many courtrooms, bar associations, arbitration and mediation companies, trial consultants and expert witnesses have installed it at their locations to enable spur-of-the-moment, face-to-face meetings with counsel and clients. For those who don't yet have videoconferencing in their own office, a booming trade has developed, particularly among court reporting firms, to provide videoconferencing “public rooms” on an hourly or daily rental basis.

Video Streaming

Within the legal profession, video streaming has been used primarily for CLE and other practice development and training applications. A limited number of progressive attorneys have also used video streaming to deliver remote depositions to colleagues, consultants or clients. When remote “real-time” depositions are desired, the majority of attorneys have streamed only text due to the bandwidth requirements and complexity of sending both the audio and video. In some extreme cases, attorneys have even brought in satellite trucks to beam proceedings from remote areas or courtrooms. Thankfully, the logistics and expense of this approach are no longer necessary.

The ubiquity of high-speed Internet connections combined with improved video compression and inexpensive hardware has created an explosion of video on the Internet. In the legal profession, this has prompted attorneys to extend the use of video streaming far beyond its initial use as a way to deliver education-related content.

Attorneys are now streaming depositions, mock trials, expert witness consultations and even court proceedings to remote parties. In short, attorneys are using video streaming for all of the same applications for which they use videoconferencing.

The only difference is video streaming is used to broadcast a one-way stream to “passive” viewers instead of enabling two-way communication between two or more parties via a videoconference.

How Does This Technology Benefit the Firm?

When streaming first gained prominence on the Web, the big “events” were live concerts and other high profile “webcasts.” The archives of these events were often treated as afterthoughts. What quickly became apparent was more viewers watched these events after, rather than during the live event.

The ability to watch what you want, WHEN you want quickly became one of the primary benefits of the technology. This phenomenon, known as “time shifting” is now an expected feature in “content delivery.” Whether it’s a CLE seminar streamed to a desktop, a TV show caught on TiVo or a radio program downloaded to an iPod, the world is rapidly moving toward an “on demand” model.

The impact of time shifting on the practice of law is no less revolutionary. For attorneys, whose primary resource is time, this ability to shift time and space via video is creating a dramatically different work process and lifestyle.

Any meeting that takes place in a videoconference can automatically be recorded using a DVR or even an old fashioned VCR. No additional administrative or technical help is required beyond hitting the VCR’s record button at the start of the meeting. No attendant or videographer is required. In fact, videoconferencing equipment is often used expressly for the purpose of recording on-site meetings and video “memos” to others. The simple user interface (a remote control) is something most attorneys can use without needing administrative or technical assistance. Once they have a recording, it can be shared with co-counsel, clients, trial consultants and others.

Recorded meetings can also be digitally encoded into mpeg files and dropped into popular trial presentation software packages. Encoded video can also be streamed live or from an archive.

Greater Participation

Instead of sharing text transcripts, attorneys can now share video depositions and other meetings with partners, associates, paralegals, trial consultants, co-counsel, experts and clients. This brings up another benefit to the firm — greater participation.

By shifting time and making meetings available to anyone with a VCR or Internet connection, everyone involved can literally see what’s happening from their desk, home or hotel

room. The ability to include senior partners in depositions to which they wouldn’t normally travel adds tremendous value to the work product of the associate who captures the deposition.

Conversely, a senior partner can question a witness and have a team of associates, trial consultants and paralegals participate from remote locations. Those who need to interact can participate by videoconference. Those watching “passively” can do so from their computers. However, the passive participants can marginally interact by instant message with the questioning attorney or each other. For those who can’t participate live, there’s always a copy in the archive to review later.

Client Relations

Client relations are greatly improved when attorneys communicate and share their progress with clients. Keeping in mind that the “client” may not be a single person but a corporate legal department that interacts with a firm on many levels, you can see how the benefits of these technologies can improve relations. Clients who have face-to-face access to attorneys, trial consultants and experts — even from an archive — will be better informed about a case’s progress.

Attorneys who include clients at key events leading to trial, such as choosing an expert witness or viewing a mock trial, greatly increase clients’ understanding of the process and comfort level. This builds trust and makes it easier for attorneys to justify strategies, expenses and ultimately aids client retention.

Cost Savings

Cost savings (attorneys billing from their desks instead of an airport) are self-evident. Granted, plaintiff attorneys who are spending their own money may be more focused on expenses than some defense firms, but ultimately the cost savings and efficiency is a boon to all. According to a Washington Post story, Akin, Gump, Strauss, Hauer & Feld, L.L.P. “saved the firm hundreds of thousands of dollars for airline tickets, hotel stays and car rentals, and it has cut the unproductive hours spent in airports.” In less than a year of videoconferencing, the firm “cut its travel spending by 60 percent, or about \$250,000.”

During a recent trial involving a large entertainment company, an army of attorneys from both coasts watched a live video stream of the trial from their offices. Attorneys and staff were able to watch testimony, receive a real-time transcript and review exhibits as they were presented in court. Both plaintiff and defense firms were able to privately pass research, trial exhibits and messages back and forth to their respective trial teams in the courtroom. Imagine what it would have cost to set up separate war rooms in Delaware and feed, house and

shuttle people back and forth to both coasts during this three-month trial.

The ability of these technologies to shift time and space, increase participation and lower travel costs has tremendous benefits for the firm. As attorneys utilize these technologies to interact more with their clients, the professional relationships between them will deepen and become more beneficial to both parties. In addition, the benefits to attorneys are having a dramatic impact not only on their professional lives but their personal lives as well.

Common and Creative Applications

The “bread and butter” application of these technologies in the litigation process is capturing and sharing depositions. Attorneys usually “discover” videoconferencing when they need to be in two places at once or when their travel plans fall apart.

Depositions

The ability to depose a witness across the country from your own conference room or even a rented “public room” down the block makes tremendous sense. Why fly when you can place witnesses in a public room and interact with them face-to-face? There are now over 4,000 public rooms available for rent worldwide with over 300 court reporting firms hosting videoconferences in the U.S alone. Medical centers, universities and shared office facilities typically offer videoconferencing facilities.

Streaming the deposition (from a videoconference or not) to passive observers increases flexibility and reduces costs even further. Any time an attorney is considering doing an “Internet dep” (streaming text in real time to remote parties), a video stream can greatly enhance the experience. Body language, demeanor and overall credibility can play a crucial role in how a witness’s deposition will be handled. Also, the ability to watch opposing counsel ensures that the witness is not being “coached,” something that can’t be determined by using only a phone or text feed.

Using Experts

Some attorneys are becoming very creative in how they use videoconferencing to hire and work with expert witnesses. Initial consultations with experts can have the following benefits:

“Prescreening” the expert. Being on camera is similar to being on the stand and can be a great preview of how the expert will perform in court.

Selling the expert. Reputable experts are busy and may not have time to take every case because of

scheduling conflicts. Knowing that they can work with you by videoconference may increase their availability by minimizing travel time.

Selling the client. Recording an initial consultation and sharing it with the client can get them to sign off on using a more appropriate expert than is available locally. Emphasizing their unique expertise, along with the fact neither party will need to travel to prepare for trial will help with the buy in (especially when they’re paying for travel and the expert’s time).

As trial preparation begins, the freedom to call quick meetings on short notice enhances the team’s ability to move forward without having to coordinate less frequent, longer meetings. Streaming depositions of key witnesses to your expert can also provide valuable real-time feedback to the questioning attorney. The expert can “pass notes” electronically to the attorney to guide the questioning or highlight technical inconsistencies in the testimony.

Use in Court

Use of videoconferencing and video streaming in the courtroom is becoming much more common. Witnesses who can’t travel are appearing by videoconference, proceedings are being streamed back to offices and war rooms, and even video arraignments between courts and jails are becoming more common.

Many courts now have videoconferencing available onsite. Others will allow temporary connections to be installed. Most will not allow you to tap into their own network, but the installation of lines on a temporary basis is fairly straightforward with vendors specializing in this service. To stream video, an encoding box is simply connected to a camera and uploads the file to any broadband connection.

Underlying Technology and Options

Streaming — The ability to move audio and video across the network depends on a number of underlying technologies. The most familiar is the file itself, most commonly a Windows Media File (“wmv”). Since Microsoft makes their media player an integral part of the operating system, Windows Media Player and files have become ubiquitous. Although other formats and players have their unique features for the purposes of encoding and playing video, the wmv has become the *de facto* standard much like the MS Word “doc” is for text.

The first step in the process is encoding the file. A software codec (compression algorithm) is employed to convert media into a wmv. Transmission of the encoded file to a “streaming server” requires a constant connection of ~256k to transmit a

good quality file which will display a viewable image of roughly 3 by 4 inches. The streaming server is simply a computer that runs software to push streams out at the request of a user. To deliver streams across the Internet with any degree of consistency, an “edge network” of servers located near the recipient is employed. These servers are connected by a dedicated IP network engineered specifically for video. The servers themselves are also configured for this purpose with each serving as a “mirror” to distribute the file intact to end users, without interruption from network congestion.

Replication of this solution from end to end is arduous and expensive. Fortunately service providers serving all or part of the food chain make it easy to do. Hardware companies sell encoding devices, ISPs provide streaming servers, and other service providers offer edge networks on a temporary or permanent basis. In the legal market, many court reporting firms provide an end-to-end solution from their office suites or can refer you to service providers who can provide streaming from your office or a remote location such as a courtroom or war room.

Videoconferencing — Videoconferencing takes streaming one step further. The ability of all parties to communicate back and forth introduces a level of complexity and greater bandwidth requirements, but it includes the same components: a hardware device with codec, a specially engineered network and a “player” at the other end to decode the signal. In this case, however, the devices on each end serve as both encoder and decoder (player).

Videoconferencing systems attach to TVs or Plasma/LCD monitors via S-Video or VGA connections. They are self-contained and do not need to be connected to a computer. Additional peripherals such as VCRs, DVDs, document cameras (“ELMOS”), projectors and laptops may be connected to display exhibits of all types to either side.

Videoconferencing systems used for “internal” purposes between offices may be connected over IP across a Multiprotocol Label Switching (MPLS) network that insures a level of Quality of Service (QoS). Videoconferencing over IP generally does not match the quality of connecting over ISDN phone lines. ISDN at 384k (three lines) is the standard for connecting between public rooms. Any “external” connections to rooms not on the same MPLS network should go over ISDN to insure greater QoS. ISDN has the added benefit of being as secure as a regular phone call, because you are dialing point-to-point rather than going through the Internet.

384k is required to provide 30 fps video (broadcast quality) and full duplex audio (no “clipping” of voices if two or more are speaking simultaneously). When running at “384” over IP, you will need to provide ~500k in dedicated bandwidth on each side to account for “overhead” and variations in the connection. Connecting between ISDN and IP rooms requires a gateway service, usually provided by your bandwidth supplier at additional cost. Bridging multiple sites for multipoint calls also requires an outside service provider. Although it is possible to bridge your own multipoint calls with an internal bridge, you need to be sure to have enough bandwidth. Each site in the call will require another 384k (500k if IP) at the host site. Unless there’s a defined application to bridge calls on a regular basis between fixed offices (with a clear ROI), it is not recommended to buy your own bridge and host this internally.

The Future

The future of videoconferencing and streaming is now. Attorneys are rapidly adopting these technologies to their practices much as e-mail and the Internet took off in the mid-90s. Essentially, these technologies are just the natural progression of the Internet revolution. With ubiquitous, low-cost bandwidth and video players on every desktop, it’s only natural for video files to share the network along with the millions of documents sent by e-mail every day.

