

MARKET BRIEF

Video Streaming Expands Reach of Higher Ed

Video streaming and video conferencing extend the reach of colleges and universities beyond their physical campus, country or even continent. These technologies allow students at a local campus to converse with and learn from experts anywhere in the world. They also create opportunities for students who cannot reach the physical campus to attend classes and contribute to discussion and research.

Video streaming and video conferencing increase the number of students a college or university can accommodate (and thus the revenue it can generate), improve students' educational experience and reduce the cost of everything from recruiting to research collaboration and professional development. And unlike previous generations of equipment that required expensive proprietary hardware and software, modern video streaming systems allow video to be viewed over users' PCs or even handheld devices such as iPhones.

Video Opportunities

One of the most widespread uses of video streaming is for distance learning – watching and listening to a class or lecture from a school in a different state or even continent, whenever and wherever the student wishes. This can improve the educational experience, and thus the satisfaction level, for students by giving them access to a much wider range of teachers, classes, special events and ideas than are available on their own campus. Distance learning can also allow a college or university to accommodate a larger number of students without acquiring expensive real estate or scheduling classes at a given time.

Video streaming provides similar benefits for faculty and staff, allowing them to receive training, see the work of their peers and take classes for professional development whenever and wherever they want to – even while traveling using their notebook computers or handheld devices.

Video conferencing allows students, faculty and staff to collaborate in real-time with their peers without the disruption, cost and loss of productivity caused by travel. Today's video conferencing technologies also allow organizations to store, catalog, search and share video conferences as needed.



Supporting Technologies

Video streaming and video conferencing are two related, but different, technologies used by colleges and universities to share video.

Video streaming refers to the one-way sharing of recorded material from a central media server over an Intranet or the Internet. It captures live real-time video from common sources such as video cameras, stores it on a media server and manages the delivery of the video in compressed form. It can be delivered over wired or wireless local area networks, wide-area networks or over the Internet. Unlike movie files (MPG, AVI, etc.) that are played after they are downloaded, streaming video is played within a few seconds of requesting the file(s) and the data is not permanently stored on the user's device.

This technology is best suited for the capture, cataloging and viewing of events such as classroom lectures or training sessions by either one or many users at the same time. Modern media servers running on industry-standard hardware allow schools to cost-effectively catalog, search, access and preserve thousands of hours of video content through a Web portal.



Video Streaming in Higher Ed: Benefits

- **Improved educational experience increases student satisfaction/retention**
- **Increased enrollment/revenue opportunity through streaming of classes to remote students**
- **Reduced professional development and training costs through use of video training**
- **Reduced costs, increased revenue and higher visibility through cataloging and reuse of lectures and other content**
- **Reduction in travel costs through use of video conferencing**
- **Increased flexibility, allowing students, faculty and staff to hear lectures or receive training on their own schedules**
- **Cost-effective recruiting through virtual campus tours**

Video conferencing, by contrast, is the two-way sharing of real-time audio and video among multiple sites. It is best suited for cases where immediate, two-way communication is required. Unlike video streaming, it is delivered using custom hardware and software.

AT&T Products and Services

AT&T provides a broad range of products and services to help colleges and universities capture, store, catalog and share video, regardless of their information-sharing needs or network infrastructure.

AT&T video streaming solutions include network-accessible IP- (Internet Protocol) based video conference recorders that eliminate the need to attach a DVR or VCR to every video conferencing device. These can record, stream and archive video of conference participants, as well as content such as presentations, in high definition and deliver on-demand video to any end-point ranging from an auditorium to a user's wireless notebook, iPhone or iPod.

These AT&T solutions provide scalable centralized video content management, including clustered configurations that provide a single IP address for recording, regardless of which device in the cluster the content is stored on. Faculty, staff or students can package video content with documents, presentations or other data for customized delivery, as well as catalogue and search it by category, keyword or other options through a custom portal.

Because video must sometimes be edited and organized to be most effective, AT&T video streaming solutions give users the capability to edit content before it is published. This includes trimming footage, adding captions, or dividing content into chapters. They can also manage which viewers can see which content, and track which viewers watched which content, when they watched it, and for how long.

AT&T video conferencing solutions allow users to conduct a live broadcast or multi-point video conference, using hardware from a variety of equipment manufacturers that adheres to industry-standard protocols. These common protocols allow users to connect to a variety of systems found throughout the video community. These systems can connect via dial-up connections or through IP networks such as the Internet or an internal Intranet.

AT&T video streaming solutions allow users to record a broadcast or multi-point video conference, to store the content on industry standard media servers and to access the video conference over either the Internet or an Intranet.

Video Streaming in Higher Ed: Applications

- **Administrator meetings**
- **Teacher/staff training**
- **Virtual campus tours**
- **Orientation**
- **Financial aid assistance**
- **Distance learning/research**
- **Professional development**
- **Rebroadcast of lectures/guest speakers**

Knowledge Anywhere, Anytime

Video streaming and video conferencing are powerful media for sharing a faculty lecture, an interactive seminar or an administrative planning session over the barriers of time and space. AT&T video streaming and video conferencing products and services help colleges and universities reach more students more effectively, foster collaboration and pursue their core missions of teaching and research while reducing costs.

For more information contact your AT&T Representative or visit us at www.corp.att.com/edu.

