

## Webcasting Best Practices

### Introduction

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Allied Pixel makes HD webcasting reliable, affordable and hassle-free. We offer webcast packages that include equipment, personnel and services tailored to your exact needs. You are assured an optimal outcome – whether your webcast will be seen by a dozen people or tens of thousands.

There are essentially two types of webcasts. *Streaming Video* webcasts deliver all content through a video player. *Videoconferencing* augments video with other features, including PowerPoint presentations, live chat, polling, desktop sharing and more. Both types of webcasts can be delivered live or as Video on Demand (VOD.) Live webcasts can be recorded and made available later as VOD.

With unrivalled expertise in the integration of HD video and the web, Allied Pixel is uniquely qualified to provide webcasting services.

### Streaming Video

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Streaming Video is the ideal solution when video quality is the topmost concern. We have the ability to stream video at any resolution up to HD (720p) at full frame rate. We can output up to four simultaneous video streams. That allows our player to take advantage of dynamic streaming – automatically selecting the highest-quality available stream for each user, based on changing Internet conditions.



### Videoconferencing

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Our videoconferencing solution uses Adobe Connect Pro and makes it possible for organizations to engage in online meetings and create rich on-demand presentations. Connect Pro is also a robust eLearning tool, enabling self-paced training programs and live virtual classes.

Connect Pro supports:

- Video
- PowerPoint
- Screen Sharing
- Live Chat
- Polling
- White Boards
- Breakout Rooms
- IM Integration



You can rely on Allied Pixel's expertise in video event production and web development to develop and execute a flawless webcast.

## Elements of Webcasting \_\_\_\_\_

Conceptually, there are four elements to any webcast: Acquisition, Encoding, Delivery and Playback.



## Acquisition \_\_\_\_\_

Acquisition typically takes place on location and includes all the elements needed for production of the program. This can include some or all of the following:

- Single or multiple video cameras with camera operators.
- Audio gear and technician(s).
- Video switcher and technical director.
- Tape deck(s) for playback of pre-recorded material.
- Computer(s) for playback of PowerPoint presentations and other computer-based sources.

Allied Pixel provides experienced crews for the shoot, including a webcast producer, camera operators, sound technicians, technical director and support staff. And with over a million dollars' worth of video gear, including the very latest HD cameras, we have all the equipment needed to produce even the most complex webcast.

## Encoding \_\_\_\_\_

Encoding is the process of converting the various acquisition sources into a format compatible with web delivery. Our Kulabyte XStreamCast Traveler mobile encoding station makes use of a dedicated hardware/software combination to deliver live streaming Flash video

feeds at multiple bitrates. We believe this state of the art device provides the very highest quality encoding available today.



We have adopted Flash as our webcasting standard because of its near-universal adoption (98% penetration of Internet-connected computers,) cross-platform capability, compression efficiency and the excellent video performance of its H.264 video codec.

Frame Size	Optimal Data Rate
320x180	300 Kbps
480x270	500 Kbps
512x288	700 Kbps
640x360	900 Kbps
848x480	1300 Kbps
960x540	1500 Kbps
1280x720	2200 Kbps

## Delivery

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Delivery is the process of disseminating the Flash video and data stream over the Internet. Third party service providers called Content Delivery Networks (CDNs) provide the backbone for delivery of these mission-critical data streams.

Allied Pixel uses Akamai, the number one CDN in the world. Akamai has the world's largest distributed computing platform. With 42,000 high-speed servers deployed in 70 countries around the world, Akamai handles 20% of the world's total Internet traffic today. Akamai's EdgePlatform continually monitors the Internet – traffic, trouble spots and overall conditions. That information is used to intelligently optimize routes and replicate content for faster, more reliable delivery. Akamai sets the standard by which all other CDNs are judged.



## Playback

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For both streaming video and videoconferencing, playback takes place in the end user's web browser. We have developed a custom Flash player for streaming video playback. The player is skinnable so that it can take on the look and feel of your corporate branding. It also provides these industry-leading features:

- **Fullscreen video** playback of both SD and HD streams
- Fully skinnable allowing **complete customization** of the player

- Support for **video distribution** through embedding, linking and recommendations
- **Ad serving** support for pre-, mid- and post-roll ads

For videoconferencing, we use Adobe Connect Pro, which is part of Adobe Acrobat. (End users who do not have the Acrobat application can use the free Acrobat Reader.) The Connect Pro interface is highly customizable, and can be reconfigured on the fly. Connect Pro is a Flash application, so it is cross platform and there are no additional software or plugins to download. Users have instant access, simply by clicking on a web link.

For both streaming video and videoconferencing, Allied Pixel works closely with you to develop a customized experience that your users will appreciate.

## **Getting Started** \_\_\_\_\_

We recommend at least four weeks advance notice to set up a webcast. Call Allied Pixel at 610.892.7970 and we will be happy to provide a webcast quote that is tailored to your needs.