Introduction

Every broadcaster and media content owner struggles with how to simplify and reduce costs of media publishing workflow. Instantaneously delivering high quality video worldwide to every screen has led to needlessly complex systems. Too often, multiple third party tools are required to encode, publish, and deliver high performing content, as well as integrate ads, gather analytics, and ensure content security—all of which can impact how quickly you can deliver high quality content to your viewers, who expect a seamless experience on every screen.

The “Broadcast Quality” Generation

In the era of multi-screen viewing, getting video content to online viewers has become increasingly difficult. People are using screens of all sizes—TVs, PCs, tablets, and smartphones—to watch these videos. Today, 84% of mobile owners use their mobile device while watching TV.¹

Proliferating devices, expanding geographic reach, and new business models have introduced a whole new set of complications into the standard content publishing workflow, further exacerbated by high consumer expectations. Accustomed to high quality broadcast, such as television and high-definition, viewers don’t see a difference between screens when it comes to quality. They want broadcast quality video wherever they are, on whatever device.

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Your Video Online, Fast and Easy, at Broadcast Quality

Limelight Orchestrate for Media and Broadcast is a powerful, integrated cloud-based workflow that enables you to get your content to online audiences faster and easier at broadcast quality.

How does it work? Simple—by integrating multiple pieces of a traditional broadcaster workflow, made easier with the platform, using cloud components all connected together across a gigantic network.

Live Stream Workflow

Step 1—Put content from the field into your downlink facility, and then to our network from your encoder.

Step 2—Does the content need to be converted? We can transcode it for you into different formats and then further transform it by adding closed captioning.

Step 3—Deliver your live content to viewers on any device, anywhere.

Step 4—Analyze playback and behavioral data for content evaluation.

Video On Demand Workflow

Step 1—Upload content from your current management system, hard drive, or other existing storage provider into our cloud storage platform.

Step 2—Does the content need to be converted? You can have the transcoding engine convert it into the formats you need… or you can have our Multi-device Media Delivery service convert it on the fly based on the requesting device. Add DRM, closed captioning, or ads.

Step 3—Make the content available to your viewers (through your website or app) on whatever device they want to watch it.

Step 4—Analyze playback and behavioral data to determine how well your content is faring with your viewers.
Ingest
Great online video starts with ingestion. With our local ingest points in every global region, we make it easy to upload live and VOD content wherever you are. With our cloud based storage integrated directly with the edge of our private network, your content is available as soon as you need it to be. What’s more, automatic replication distributes your content everywhere without having to upload multiple copies.

**Key workflow components include:**
- **Satellite downlink**—Our specialists can work with you in the field to get content from your trucks.
- **Upload**—API, FTP, SCP, SFTP, RSYNC, FTP-SSL, and Aspera®.
- **Storage**—Petabytes of cloud-based, edge-integrated storage with automated replication policies.

Convert
Once we have your content, it’s on to conversion, where our massive computational resources kick in to turn your content into the required format on the fly. No more need to pre-transcode for multiple devices. Even publish VOD before it’s done transcoding! Need subscription or rental models? We can support that too. MPEG-2, MPEG-4, and H.264 codecs? No problem.

**Key workflow components include:**
- **Transcoding**—On-the-fly conversion from RTMP and MP4 into multiple formats including HDS, HLS, and MSS.
- **DRM**—Cloud storage integrated with the edge of the network ensures lightning fast delivery.
- **Ads**—Integration of ads into VOD and live feeds. Support for your ad server, linear video ads (pre, post, and mid-roll), VAST 3.0 and VPAID.
- **DVR**—Digital video recording technology to convert live feeds into VOD assets.
- **Cache**—Intelligent cache control and content purging.

Deliver
After it has been converted, it’s time to get your content to all those devices your viewers are using. Direct integration with the Limelight network, the world’s largest private CDN, gives you access to a powerful, globally distributed network of thousands of servers interconnected with most of the world’s leading ISPs.

**Key workflow components include:**
- **Business logic**—Intelligent software at the edge determines the requesting device before delivering content, automatically converting it into the right format.
- **Storage**—Cloud storage integrated with the edge of the network means that your data is requested and delivered from a nearby location if it is not available in cache.
- **Security**—A variety of security services are available at global scale, including SSL, URL tokenization, and DRM.
Playback and Analytics

Through our highly scalable infrastructure, your viewers enjoy the highest quality content that their devices and bandwidth can support. Our finishing touch is the integrated analytics (both at the edge and within our player), which offer powerful insight into their behavior—what are they watching, when, where, and on what device. It preserves all advertising analytics as well, with no overhead.

**Key workflow components include:**

- **Player**—Our off-the-shelf player for RTMP and HTTP playback enables quicker time-to-market for your content. It is accessible via scalable and documented API.
- **Authentication**—Through our partner ecosystem, you can enable authenticated access to your content.
- **Analytics**—Detailed reports help you understand how content is consumed. We preserve all advertising analytics with no overhead, and can even integrate with your existing analytics (Nielsen, Comscore, Omniture, and more).

**API Integration**

Limelight Orchestrate for Media and Broadcast connects your existing workflow components to the functionality that you need with powerful APIs. You can keep existing processes while leveraging the power, scale, and capacity of our cloud based services (like transcoding and delivery). We have the integration ability, documentation, and sample code to get you up and running as quickly as possible.

**Some of our APIs include:**

- **Ingest**—Notify Limelight of new content without any manual steps. We’ll pick it up from the location you specify.
- **Content and Playback**—Whether you need HLS for your iOS app, Smooth Streaming for Xbox, or progressive download file for legacy smartphones, it’s simple to build your sites and applications for any device.
- **Search**—Empower your users to find the content they want or need by querying metadata.
- **Monetization**—Monetizing your content through ads? Set your cue points easily via API.

**Next Steps**

Limelight Orchestrate for Media and Broadcast is the solution for a faster, more efficient way to get your content to global online viewers at broadcast quality. With integrated components and API connectivity you can build the broadcast workflow of your dreams. Contact us to get started today: email solutions@llnw.com, or call +1.866.200.5463.

Contact us for more information about Limelight Networks and our services.

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