



# Enabling video transcoding in the cloud with Aspera On Demand

## AT A GLANCE

**Industry**  
Media & Entertainment

**Products**  
Aspera On Demand Application Platform  
Aspera Embedded Client

**Challenges**  
Moving large video files in and out of the Amazon Web Services cloud.

- Results**
- Full utilization of available bandwidth regardless of transfer distance, network conditions or file sizes.
  - Up to 23x improvement over TCP-based solutions in file transfer speeds in and out of the cloud.
  - Seamless integration of Aspera FASP™ transfer technology into Zencoder's Amazon cloud-based solution for easy enablement of fast file transfers in and out of S3 cloud storage.
  - Enterprise-grade security in transit and at rest ensures the safety of the most business-critical video content.

Zencoder offers a cloud-based software-as-a-service video transcoding solution. Using a simple API, content providers can transfer and transcode video utilizing the power of the cloud. With industry-leading performance, Zencoder processes video for a broad range of customers, including online video startups and major broadcasters like PBS. Content providers turn to Zencoder to transcode video for distribution to a broad range of Internet connected devices, including tablets, mobile phones, and browser-based experiences.

Built on Amazon Web Services (AWS) cloud, Zencoder's solution provides massive scalability and achieves maximum efficiency by transcoding outputs in parallel. Zencoder has integrated Aspera On Demand into its service, enabling secure, high-speed transfers of large video files to and from its cloud platform. Content providers can take advantage of the integration by using their own Aspera transfer servers or by using Zencoder's Secure Transfer application, which performs high-speed transfers directly into encoding servers using Aspera Embedded Client.

## CHALLENGE:

Using traditional TCP-based transfer protocols, such as HTTP and FTP, to move large video files into the cloud presented a problem due to the inherent bottlenecks in the TCP protocol, making big data transfers slow, inefficient and unreliable. With TCP, Zencoder experienced speeds as low as

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 Jon Dahl  
CEO, Zencoder

21.8 Mbps over a 1 Gbps network - a 2% bandwidth utilization rate that that resulted in a 10-hour transfer time for one hour of DNxHD high-definition content. Zencoder needed a high-speed transfer solution that could handle the large file sizes while also meeting the security and reliability demands of its customers. “We can encode high-definition videos faster than real time and standard-definition video 5x to 10x faster than real time,” said Jon Dahl, CEO and co-

## BENEFITS

**Maximum speed:** Large video files are transferred over any network into and out of Amazon S3 cloud storage at maximum speed, regardless of network conditions or distance.

**Complete security:** Includes built-in security with thorough SSH authentication, configurable encryption settings per user, and data integrity verification for each transmitted block.

**Massive scalability:** Seamlessly scales to thousands of concurrent transfers per server host.

**Cloud-ready solution:** Available directly on AWS, Aspera On Demand scales with the needs of the business, eliminating the need for costly and time-consuming IT infrastructure build-outs.

**Reliable support:** Highly-qualified, dedicated service team provides exceptional support and maintenance options tailored to best suit business needs.

founder of Zencoder. “But all of that is meaningless if the transfer takes forever. So being able to provide fast transfer is a big deal for us.”

## SOLUTION:

Zencoder selected Aspera to power its transfers, citing their customers’ desire to use Aspera software as a major swaying point. “It enables customers to more seamlessly use our system,” said Dahl. Existing Aspera customers connect to Zencoder’s cloud service using their Aspera software. For customers without their own Aspera clients or servers, Zencoder integrated the Aspera Embedded Client into its own client software. “We want to make cloud-based transcoding a practical solution for large content providers, and by supporting Aspera’s high-speed file transfer technology, we’re reducing the pain around moving high-bitrate content over the wide area network,” said Dahl. “Content providers with multi-gigabyte video, such as broadcasters and movie studios, can now harness the speed and scalability of transcoding video in the cloud with Zencoder.”

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## RESULTS:

For Zencoder, high-speed performance is the cornerstone of the solution it provides. With the help of Aspera, Zencoder delivers unmatched value and performance to its customers. “We have greatly improved throughput to our encoding solution,” said John Riske, Director of Business Development and Marketing at Zencoder. “We’re seeing upwards of 500 megabits per second of throughput up to the cloud, which, depending on some variables, is an incredible improvement above just standard FTP or HTTP.” A transfer of a one-hour DNxHD video file that could take 10 hours over FTP, now completes in less than 26 minutes using Aspera. On top of high-speed transfers, Aspera’s patented FASP transfer technology encrypts files in transit and at rest, assuring bulletproof security for business-critical content. Zencoder’s superior encoding and massive scalability coupled with Aspera’s unmatched transfer speed and security makes for a winning combination. “We’re all really breaking new ground here,” said Riske.

 **John Riske**  
Director of Business Development and Marketing,  
Zencoder

## ABOUT ZENCODER

Zencoder is a cloud-based video encoding service that offers video transcoding, ingest, and syndication. With support for over 99.9% of codecs and formats, videos from content creators, website users, and other sources can quickly and efficiently be converted for optimized viewing on virtually any device.

### About Aspera

Aspera is the creator of next-generation transport technologies that move the world’s data at maximum speed regardless of file size, transfer distance and network conditions. Based on its patented FASP™ protocol, Aspera software fully utilizes existing infrastructures to deliver the fastest, most predictable file-transfer experience. Aspera’s core technology delivers unprecedented control over bandwidth, complete security and uncompromising reliability. Organizations across a variety of industries on six continents rely on Aspera software for the business-critical transport of their digital assets.

Learn more at [www.asperasoft.com](http://www.asperasoft.com)