



CASE STUDY

Media & Entertainment Content Workflows

Executive summary

Railroad19 designs and implements custom software solutions to automate media workflows at scale. We help our clients to overcome challenges integrating disparate operations and different vendor solutions in a reliable and scalable manner.

Our clients run Media Operations to support over \$15 Billion of Studio and Broadcast Content Distribution.

The scalable solutions we deliver have supported our clients' migration from tape to digital, broadcast to streaming, on-premise to the cloud all while integrating operations that had previously operated in inefficient silos.

The challenge

Operational workflows for content distribution are varied and can be difficult to manage at scale. Our clients were running multiple media operation rooftops to support the diverse media distribution needs of the business.

Our client challenged us to design and deliver the solution to manage workflows across multiple vendors, multiple networks, and multiple distribution channels.

Historical investment in facilities, vendors, and training had divided the operation, sometimes hampering efficiency.

► Media Archive Restore

As part of their cost saving measures, our Client has media files archived via S3 Glacier; this reduces their S3 costs dramatically. In order to limit the number of objects transitioned from Glacier to S3 to keep costs down, we developed a service to be the one gatekeeper allowed to restore files.

Entertainment media files can grow to be quite large as video compression formats, aspect ratios, color depth, etc increase to match the experience that our client's users expect. It can be quite costly to archive all assets in S3. It is also costly to frequently restore objects to S3 from a solution such as Glacier.



About Railroad19

Railroad19 is a software development professional services firm that develops software solutions in critical operational functions for large enterprise clients. We operate in three verticals: Media & Entertainment, Financial Services, and Energy.

Railroad19 has been delivering solutions at enterprise scale for two decades in some of the most complex operational environments.

Railroad19 specializes in complex solutions, vendor integrations at scale, and cloud migrations for our clients' critical operations.

Major Media Conglomerate

Our clients are fortune 200 Media and Entertainment firms with significant operational scale. Software solutions are difficult to procure at this scale. We work side by side with our client development teams to deliver the software solutions that operations of this size require



Major Media Conglomerate

Our client had grown rapidly through acquisition. Content distribution operations were siloed and each silo was optimized for an age where digi-beta tape was the common medium of media exchange.

Our client quickly recognized the benefits of a content distribution operation running at scale. 24x7 or even multi-shift operations are more flexible and more resilient when running at scale. Siloed scheduling and MAM systems, however, were serious challenges to overcome.



Why Railroad19?

Railroad19 has successfully delivered complex, enterprise scale solutions for our clients for over 20 years. We have a unique approach to the talent that we hire. We have delivered success with a remote development team for 15+ years working with motivated senior software developers that take pride in their work.

Our people are knowledgeable in their technology and motivated by environment in Railroad19 to master their craft. We put emphasis on our staff having or developing expertise in either front-end or back-end technologies.

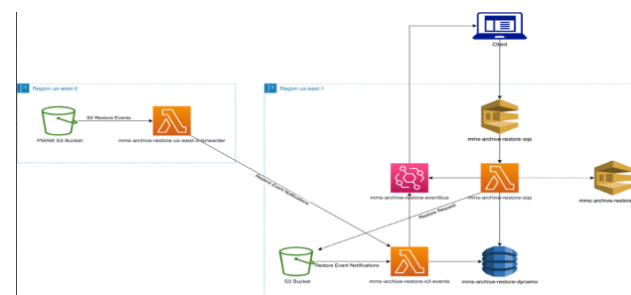
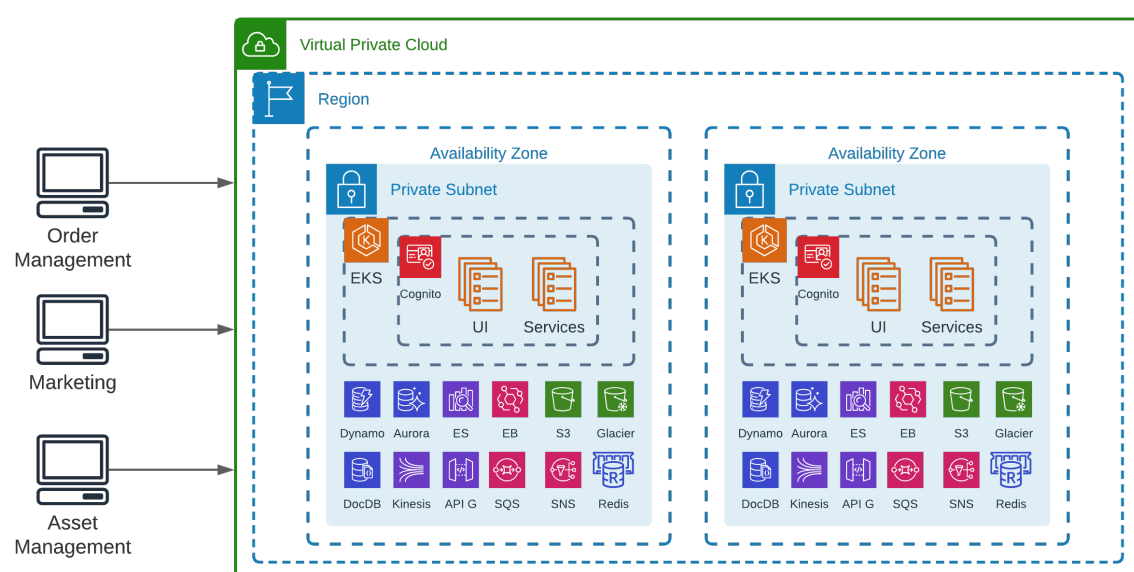
Our people are mature enough to work within the process requirements of our clients. We are usually a part of a larger multi-disciplinary client team tasked with delivering success. Our developers are comfortable working in multiple development processes from strictly Agile to more regulated methods. Regardless of the method, our developers have repeatedly kept the quality of the final deliverable in focus.

It has been our experience that a smaller more focused team of competent developers are much faster at delivering higher quality code for well thought-through solutions.

The solution

Our solution integrated and automated the operational post-production prep operations spanning broadcast, digital, studio, and international distribution.

We created an asynchronous microservice that handles issuing restore requests to S3 on behalf of clients and sends status to the clients as the objects progress through the warming process



- Broadcast Post-Production Prep
- Streaming Prep
- Linear and Digital Commercial and Promo Prep
- Digital and International Distribution Prep
- Studio Vault Feature and TV Distribution Prep
- Studio Episodic Post-Production

Our solutions have allowed our clients to change as required by the business and flexibly scale as required by the operational needs of Media & Entertainment.



Results

Using the software solutions we developed, our client was able to develop a more reliable and scalable operation that can respond to the immediate challenges as well as meet the longer-term requirements from the business. Our solution helped eliminate the operational silos that frequently stand in the way of rapid success.

Our solution consolidated the archive and restore process from S3 to Glacier for media files and allowed our Client to develop more sophisticated methods for predicting and managing media use.

A secondary benefit is that the sensitive S3 buckets in question have their bucket policies more protected by having fewer principals granted access, since the Archive Restore service is the sole principal responsible for accessing those files for restore. We have reduced access privilege across the S3 restore environment to the least number of actors that need the access for the efficient functioning of the global distribution organization.

Our solution provided the flexibility into the cloud as the media operation needed to grow for new business launches, premier sporting and entertainment events, and business acquisitions.

Longer term benefits

Consumption and distribution patterns for our clients' media is changing. Our industry is consolidating to meet need for greater scale and efficiency. That efficiency is available for clients that are able to flex their teams, operations, and technology with the capability in the cloud.

Our solutions have delivered their immediate benefits and also set our clients up for long-term success for their media sales and distribution. Studio TV Distribution, Digital Distribution, and International Distribution sales cycles sped up as the state of the rights, schedule, and media became crystal clear across the various operations. Account teams had much less work to figure whether it is possible to deliver content to a particular outlet or territory in the timeframe that the client requires.

Our longer-term challenge was to design and implement the solutions to flex as our clients' operation grew in scale while being flexible enough to incorporate new capabilities into the workflow. The cloud and AWS have provided us with very important capabilities to meet these challenges. Our team designed to take advantage of these capabilities and delivered the reliable and scalable implementation our clients require.

Major Media Conglomerate

Our clients operate multiple separate but related distribution operations. They challenged us to deliver solutions that can see manage media across Studio, Broadcast, International, and Digital Distribution operations.

Our solutions are delivered against an environment where each of those operations are multi-facility, 100 person+ operations that have a high requirement for quality and reliability.



Next steps

A significant amount of the hardware and vendor software is still operating on premise in central locations. We have delivered the ability to bridge multiple operations with our software solutions taking advantage of the cloud. We are on the path to increasingly put more and more of the media vendor technology in the cloud.

Key Highlights

► Experienced teams with a history of success

Our teams have delivered successful engagements for Media and Entertainment clients for over 20 years. Our teams have experience ranging from Studio Content Sales, Program Scheduling, Ad Sales, and Media Content Distribution. Our individual teams delivering their solution have the breadth of view to see where their specific piece fits into the overall picture.

► Smaller, focused teams

We have had great success with smaller more focused teams working on these complex solutions. These solutions have not been delivered before at this scale and our smaller teams can more rapidly iterate to meet the needs of the client operations.

► More specialized, quality developers

We hire developers that are specialized in their craft. Our front-end developers are experienced with the modern front-end technology and frameworks. They know the design and performance trade offs for the different implementation approaches. Our back-end developers are experienced with their main programming language and have the cloud expertise to deliver their solutions using cloud architectures.

About Railroad19

Railroad19 delivers services in the Media & Entertainment, Financial Services, and Energy industries. We are an AWS Advanced Partner with multiple professionally certified staff and are a AWS Well Architected partner.

