TrackIt

CASE STUDY

PIXELOGIC

2019

CLIENT - Pixelogic Media

INDUSTRY - MEDIA AND ENTERTAINMENT

MISSION - To help media and entertainment customers build more efficient supply chains, more valuable products, and larger global audiences.

https:/pixelogicmedia.com

LACK OF ON-PREM STORAGE SPACE

In August of 2019, Pixelogic Media was in the throes of a full-blown data storage crisis. Having noticed that almost 100 percent of on-prem storage space was being used, Rick Soto, VP of Global IT Infrastructure at Pixelogic Media recognized the pressing need for a sustainable archiving solution to ensure the shifting of files that weren't being used from on-prem to a different location. Pixelogic did not have an existing archiving process and any previous efforts to clear up on-prem storage space primarily consisted of shifting files to LTO storage.

[The challenge] is with people utilizing storage as a parking lot. So [the problem] was primarily storage management. A lot of times we do need to keep data based on SLAs.e recently did an assessment of all our content owners that we currently work with. We took what their requirements are of how long we need to keep their content when it lands at our location and it's actually quite scary... Some of their storage requirements could be for 60 days, some could be 90, and some could be 'indefinitely'. Taking the estimate of how much data comes in on a monthly basis per client, the actual storage requirements could be astronomical.

Rick Soto, VP of Global IT Infrastructure, Pixelogic Media

Recognizing TrackIt's expertise in AWS, Rick decided to partner with TrackIt to build an archiving pipeline for Pixelogic Media. In addition to finding a long-term solution for Pixelogic's storage problem, Rick was also interested in working with TrackIt to figure out how much they could offload and leverage AWS in regards to compute, automation, and distribution of content.
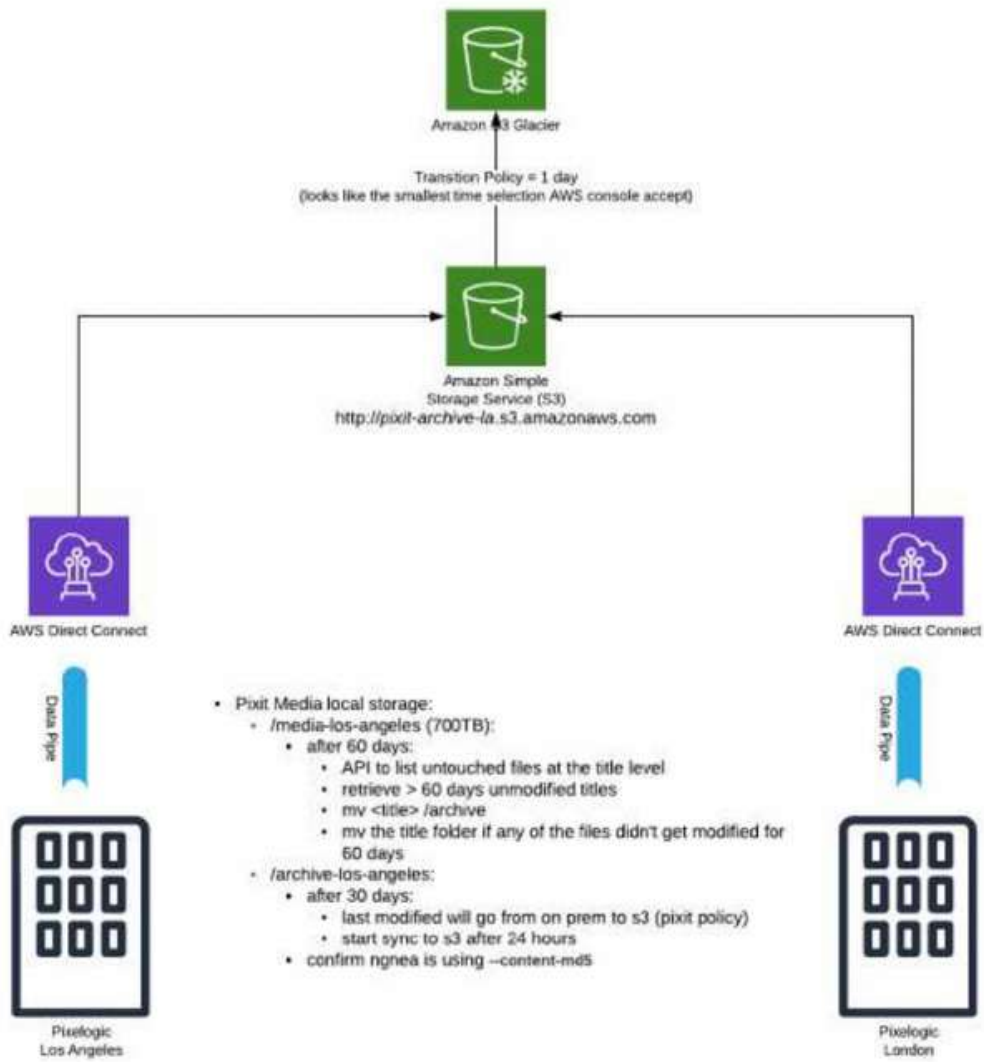
The Archiving Pipeline

The archiving workflow built by TrackIt is straightforward and involved the integration of four independent platforms: PixStor Ngenea (HSM), Vidispine (Media Asset Management Platform), pHelix (Job Management), and AWS.

The Archiving Process

Ngenea, Pixit Media's HSM identifies files that haven't been used for 60 days. These files are moved to a dedicated archiving S3 bucket where they remain for a period of 24 hours - the smallest time selection that AWS permits for S3 storage. After the 24 hours have elapsed, the files are automatically pushed into an S3 Glacier Deep Archive Bucket where they will be stored indefinitely and can be retrieved within 12 hours or less to AWS S3.

> **Ludovic Francois and I have been in constant communication over the last year and what he and his team have been doing really enticed us to leverage the expertise of TrackIt.**
>
> Rick Soto, VP of Global IT Infrastructure, Pixelogic Media

Amazon S3 Glacier

Transition Policy = 1 day
(looks like the smallest time selection AWS console accept)

Amazon Simple
Storage Service (S3)
http://pixit-archive-la.s3.amazonaws.com

AWS Direct Connect

Data Pipe

AWS Direct Connect

Data Pipe

- Pixit Media local storage:
  - /media-los-angeles (700TB):
    - after 60 days:
      - API to list untouched files at the title level
      - retrieve > 60 days unmodified titles
      - mv <title> /archive
      - mv the title folder if any of the files didn't get modified for 60 days
  - /archive-los-angeles:
    - after 30 days:
      - last modified will go from on prem to s3 (pixit policy)
      - start sync to s3 after 24 hours
  - confirm ngnea is using --content-md5

Pixelogic
Los Angeles

Pixelogic
London

OPTIMIZING ARCHIVING COSTS

Glacier Deep Archive vs. S3

We have built a simple calculator that compares capacity costs for various AWS storage offerings versus how long the data will be stored. It does take into account minimum retention requirements.

The calculator can be found at:
https://docs.google.com/spreadsheets/d/1BhIWnSGEntgULeyGUHQswL1zRWFzbX4OIKmrtztGYjQ/

STORAGE COST FOR VARIOUS TIERS AND PERIODS OF TIME

Enter Capacity (TB):	1000			

Storage Tiers	Months			
	1	4	8	12
S3 Standard (Over 500TB)	$21,000	$84,000	$168,000	$252,000
S3 Private Pricing (@2PB)*				
S3 Infrequent Access (IA)	$12,500	$50,000	$100,000	$150,000
S3 IA Private Pricing (@2PB)*				
S3 Single Zone	$10,000	$40,000	$80,000	$120,000
Glacier	$12,000	$16,000	$32,000	$48,000
Glacier Private Pricing (@2PB)*				
Glacier Deep Archive	$5,994	$5,994	$7,992	$11,988

* Private Pricing example dated ⬚⬚⬚ minimum, ⬚ year commitment

AWS PRICING - US WEST (OREGON) - Per GB/Month

Storage Tiers	AWS Standard Pricing	Private Pricing*	Notes
S3 (0-50TB)	$0.0230		No Minimum Duration
S3 (50-500TB)	$0.0220		No Minimum Duration
S3 (Over 500TB)	$0.0210		No Minimum Duration
S3 Infrequent Access	$0.0125		No Minimum Duration
S3 Single Zone	$0.0100		No Minimum Duration
Glacier	$0.0040		90 Day Minimum Duration
Glacier Deep Archive	$0.0010	$0.0010	180 Day Minimum Duration

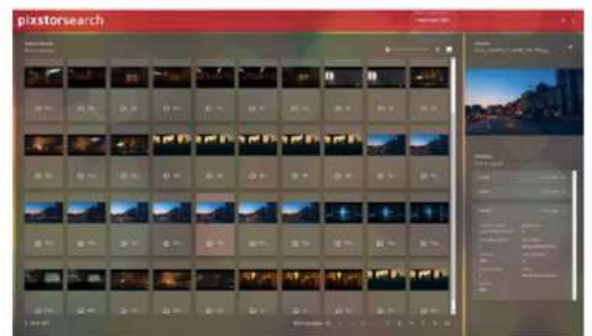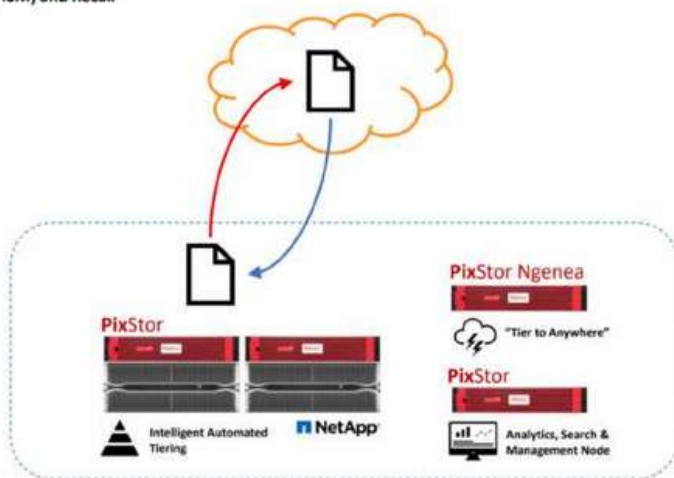## PIXIT MEDIA'S PIXSTOR NGENEA HSM

With a colossal number of files that needed to be sifted through, there was an evident need for a solution that could streamline the process of identifying files that had to be archived.

This pivotal role was played by Pixit Media's PixStor Ngenea HSM. PixStor Ngenea HSM transparently tiers media assets based on policies (for example, untouched assets over 60 days old) from high-performance storage to cost-effective, highlyprotected object, tape, and cloud storage.

PixStor Ngenea's search function simplifies the process of finding migrated assets among vast cloud or object stores. PixStor Search performs 3 functions: 1. It automatically harvests user and application metadata 2. It instantaneously finds archived assets 3. It recalls archived assets seamlessly to production storage when needed

Additional Storage Space, Flexibility, and Cost Savings

Rick mentions two big wins from this project:

1. Data cleared on-prem

2. Cost savings

    a. S3 vs. Glacier Deep Archive

    b. Analysis based on on-prem archiving - LTO archiving or Tier 3 storage archiving + overhead

3. Enhanced scalability with a cloud-based archiving pipeline

Why TrackIt

What can you say about the quality of communication and customer care you received from TrackIt?

"The quality of communication has been perfect. I can get a hold of [Ludovic Francois] or [Brad Winett] whenever I need to, it's been great. Either by email, by phone, or on Slack, we're always in communication."

Rick Soto

Would you recommend TrackIt to other companies using AWS? Why?

"Yes! In fact, when AWS actually came in here, they brought Ludo! So there's a sense of partnership and comfort utilizing TrackIt."

Rick Soto

What are 3 characteristics of TrackIt's team that stood out to you?

"I would say **Collaboration, Expertise**, and **Partnership**"

Rick Soto

CHALLENGE(S) :
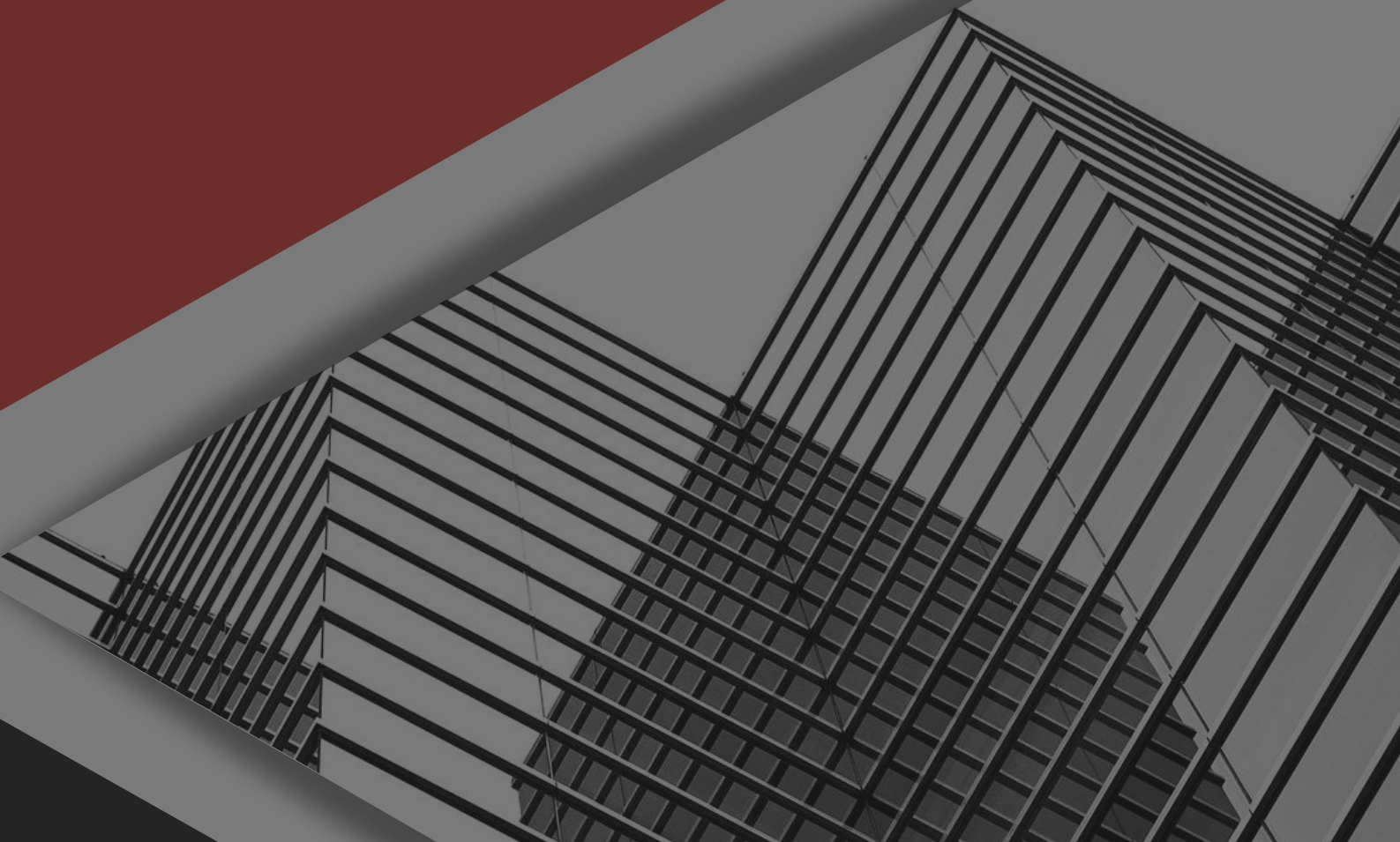- Lack of on-prem storage space
- No Archiving Process

SOLUTIONS(S) :
- AWS Archiving Pipeline

OUTCOME(S) :
- Data cleared on-prem
- Cost Savings
- Enhanced Scalability

TrackIt, an **Amazon Web Services Advanced Consulting Partner** based in Marina del Rey, CA, offers a range of cloud management, consulting, and software development solutions. Their expertise includes Modern Software Development, DevOps, Infrastructure-As-Code, Serverless, CI/CD, and Containerization, with a focus on **Media & Entertainment workflows**, High-Performance Computing environments, and data storage.

TrackIt excels in cutting-edge software design, particularly in the areas of containerization, serverless architectures, and pipeline development. The company's team of experts can help you design and deploy a custom solution tailored to your specific needs.

In addition to **cloud management and modern software development services**, TrackIt also provides an open-source AWS cost management tool to help users optimize their costs and resources on the platform. With its innovative approach and expertise, **TrackIt is the ideal partner for organizations seeking to maximize the potential of their cloud infrastructure**.