TrackIt

CASE STUDY

healthline

2020

CLIENT - Healthline Media

INDUSTRY - Healthcare Media

MISSION - With To be the most trusted ally to users in the pursuit of health and well being.

https://www.healthline.com/
https://www.medicalnewstoday.com/
https://www.greatist.com/

ABOUT HEALTHLINE MEDIA

Healthline Media is currently the biggest portfolio holder of health information websites. On a mission to be the most trusted ally to users in the pursuit of health and well being, Healthline has three different brands that cater to different user groups:

♦ Healthline.com, the company's primary website where users can find generic health-related information
♦ MedicalNewsToday.com which is a more fact and science-based website that provides users with the latest medical and health news
♦ Greatist.com, an in vogue and informal website designed to target a slightly younger segment of the audience.

In 2016, Healthline Media bolstered its digital health reach to over 61 Million by acquiring MedicalNewsToday.com and sister website MediLexicon.

SHIFTING FROM LINODE TO AWS

In order to streamline and simplify the process of managing the cloud infrastructure for multiple websites, Healthline's plan was to consolidate all their cloud infrastructure belonging to different websites under a single umbrella – Amazon Web Services (AWS).

Pierre Grandin, the Lead Infrastructure Engineer at Healthline, shared that since the technical stack that MedicalNewsToday.com was running on was not something built by Healthline's team, the company's primary objective was to make the necessary changes to ensure that the stack fitted their approach from an infrastructure standpoint.

The challenge involved shifting Medical News Today's infrastructure from Linode to AWS without compromising user experience. Healthline was also looking to change MedicalNewsToday's content distribution network (CDN). KeyCDN, the website's previous CDN was proving to be expensive. As a result, the company decided to opt for Amazon CloudFront which better suited their evolving needs.

> *We take the issue of response time very seriously. We have to. Because the response times in various regions are paramount to maintaining our Google ranks. So we absolutely had to make sure that this shift happens seamlessly and that we are getting performance at least equivalent to what we had with KeyCDN.*

Pierre Grandin, Lead Infrastructure Engineer, Healthline Media

Having recognized TrackIt's expertise in AWS and specifically DevOps, Pierre and his team sought TrackIt's help to make the transition. The project involved shifting infrastructure from Linode to AWS, containerizing software, and upgrading the caching system.
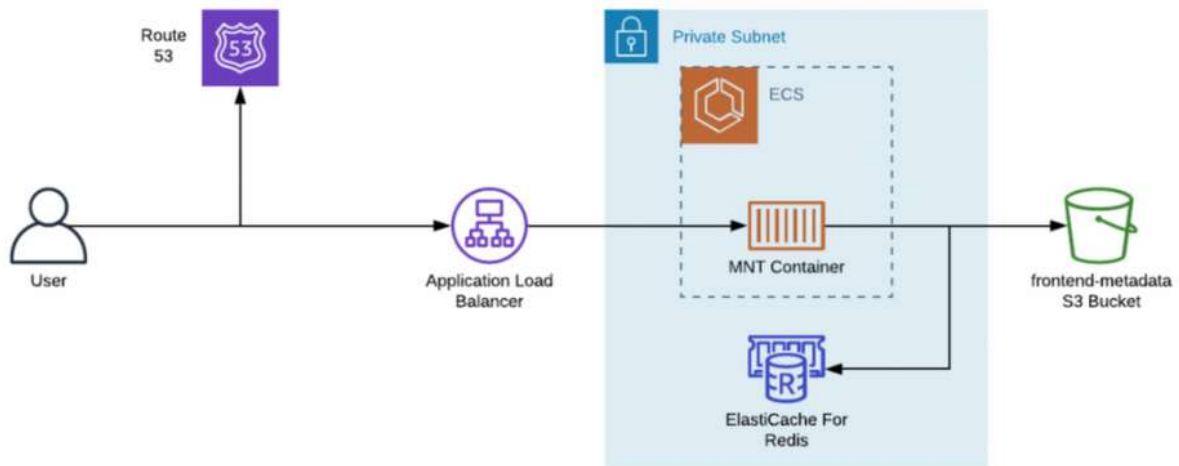
CACHING LAYER WITH AMAZON ELASTICACHE

Healthline and TrackIt encountered challenges with the caching architecture while working on the containerization. The previous caching layer that MedicalNewsToday.com had was pulling objects from the Content Management System (CMS), transforming them, and then storing them on each web server's local hard disk drives.

Data was loaded into local cache memory but it was essentially running on individual and isolated bare-metal servers. Despite performing adequately, scalability was limited.
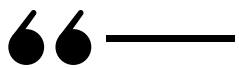
> *The challenge was that each and every web-server had to load these objects' memory. So performance was good, but scalability was bad. So instead we decided to switch to a Redis-based approach.*

**Pierre Grandin, Lead Infrastructure Engineer, Healthline Media**

The new caching approach takes advantage of Amazon ElastiCache – an AWS version of Redis – and allows the Healthline team to push web page content to an S3 bucket. The push action seamlessly triggers a lambda function that first transforms the data and then stores the result in Redis, making the data readily accessible by all containers.

> *What's important to note is that all the steps in the caching process happen seamlessly. All we need to do now is to trigger the export from the CMS and the result is that all the assets are in Redis and accessible directly by the containers. No need to synchronize anymore! Whenever my team starts a new container, we don't need to worry about the caching layer, it's already there.*
>
> *Whereas before, when we were running on bare-metal, we had to put a cache of all of the assets locally, load it into memory, and make sure that it was kept in sync. The new caching layer with Amazon ElastiCache is definitely making the platform more elastic. If we need to scale out, we just need to add containers and we don't need to worry about the caching layer.*

Pierre Grandin, Lead Infrastructure Engineer, Healthline Media
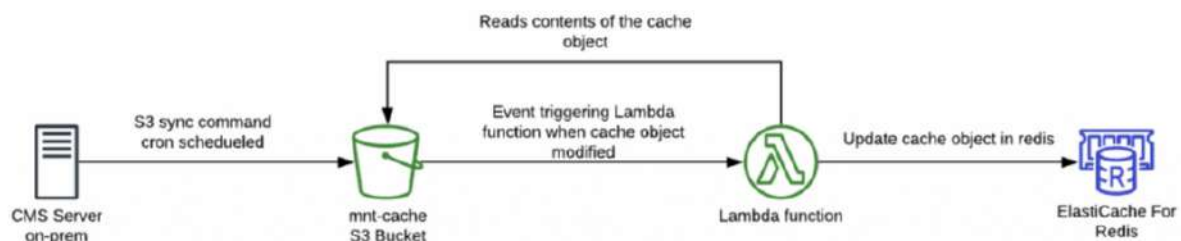
SCALABILITY, AUTOMATION, AND COST SAVINGS

Pierre mentions three big wins from this project:

- The caching layer that helps them scale faster. Leveraging Amazon ElastiCache has helped Healthline in creating a more performant platform that's easy to maintain.
- The containerization that allows Healthline to facilitate the implementation of infrastructure as code. Healthline is now able to deploy their infrastructure via Terraform whereas they had to use bare-metal servers before.
- The cost savings from:
  - The containerization which allows for more efficient use of resources and a reduction in maintenance costs.
  - The switch from KeyCDN to Amazon CloudFront.

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I am really impressed by how well-connected Ludovic is with people at AWS. And whenever we face an AWS-related problem, Ludo and his team can solve it. I think that's a game changer. There is a huge gap in what we had before and what we have now in terms of automation. This is a big win.

Pierre Grandin, Lead Infrastructure Engineer, Healthline Media

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Q. WHAT ARE 3 ASPECTS OF TRACKIT THAT STOOD OUT TO YOU ?

"First is the TrackIt team's AWS-related expertise, this one's a "no brainer". Secondly, they are very available. Whenever we have a question, we get a response very quickly from them, which is nice. The third thing which I've really appreciated about their work is the fact that they don't give up. They figure things out.

Pierre Grandin, Lead Infrastructure Engineer, Healthline Media
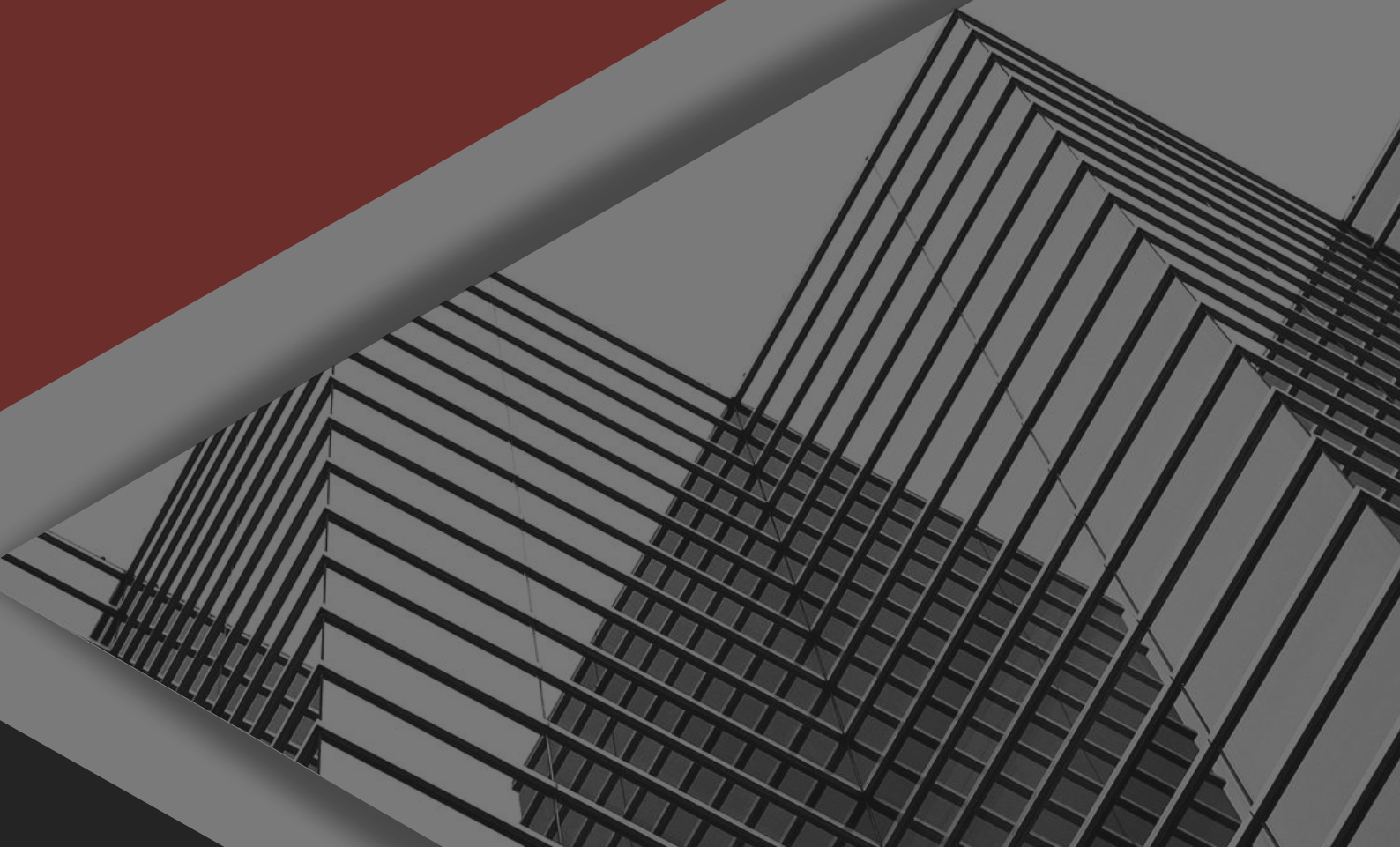
CHALLENGE(S) :
- Shifting Infrastructure from Linode and KeyCDN to AWS
- Bare-metal Caching System that hindered scalability

SOLUTIONS(S) :
- Containerization and Automation of Infrastructure
- Caching Layer: Amazon ElastiCache
- Amazon CloudFront

OUTCOME(S) :
- Successful Shift from Linode and KeyCDN to AWS
- Containerization and Automation
- Enhanced Scalability with New Caching Layer
- Cost Savings From Automation and Switching to a New CDN (Amazon CloudFront)

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**.