

Create an Easy-To-Use and Scalable Monitoring System with Minimal Maintenance Required

VISTAR MEDIA

Vistar Media (www.vistarmedia.com) is the first platform for the digital out-of-home advertising industry. Vistar Media's ad server and exchange enable media buyers and media owners to seamlessly transact across guaranteed and non-guaranteed inventory through a single platform.

With the reach of 80,000 unique locations and 8 billion monthly impressions available as part of its inventory, Vistar Media looks to change the digital out-of-home advertising market by making it accessible in a programmatic way similar to online advertising. "We bring real-time advertising demand to existing digital out-of-home networks," explained Mark Chadwick, co-founder of Vistar Media, "We push ads down to physical screens in public places that aren't showing broadcast television."

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Need: Avoid Increasing Monitoring Overhead

Vistar Media was building a real-time bidding exchange for digital out-of-home ads by providing the analytics and the infrastructure for the ecosystem. "We not only facilitate the buys, but we also act as an ad server for the network and advertisers who put in their server requirements. It is very similar to the large online ad servers," stated Chadwick. In order to provide this real-time service, Vistar Media had to be able to monitor and analyze a wide range of data points for the many media companies in their ad exchange.

Chadwick wanted to create a monitoring system that was more optimized than the one that he had used at his last company. There, Chadwick had relied heavily on the open-source project Graphite and had more than 12 servers solely dedicated to collecting metrics for monitoring. As his previous company grew, Chadwick had to expend an increasing amount of time to make sure that the monitoring servers scaled at the same rate as the company. "I personally wrote some custom software to do load balancing," said Chadwick. When he co-founded Vistar Media, Chadwick knew that he wanted to outsource the burden of server monitoring to a third-party so that his team could focus their time on serving clients through their core business. As a company dealing with a large number of integrations, such as Python, StatsD, Amazon EC2 and S3, Chadwick wanted the new monitoring service to be able to integrate with the services and databases that Vistar Media was already using. "At the end of the day, we are not running a metrics business over here," said Chadwick, "So if I can get the monitoring out of my hands, I'm happy."

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“Out of the Box,” Low Maintenance Monitoring

During his quest to outsource his monitoring needs, a key priority of Chadwick’s was to find an “out-of-the-box” metrics solution that would integrate easily with Vistar’s current systems. Chadwick became aware of Datadog when a tweet from Alex Payne, the ex-CTO of Twitter, mentioned to ‘check Datadog out’. Chadwick found that Datadog included the integrations that he needed to get Vistar’s monitoring solution up quickly. Additionally, Chadwick liked Datadog’s ability to perform customized metric monitoring, log critical events, and scale easily. “I had scaled up open-source monitoring solutions once before, and it wasn’t fun. So when I had the opportunity to do it again, I said ‘No.’,” said Chadwick.

Eliminating Unnecessary and Time-Consuming “Back and Forth”

“In terms of time, on a daily basis, Datadog eliminates a lot of the back and forth with the media owners to find out what is going on,” according to Chadwick, “It is just a good visual tool for seeing the activity from each of the content management systems that we work with,” according to Ciara Kennedy, Platform Engineer at Vistar Media. “It is an easy way to go in and get a feel of what is going on.” Without Datadog, Vistar Media would have to repeatedly spend time to reach out to each media owner directly to see if they are sending any requests that day.

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— Ciara Kennedy, Platform Engineer, Vistar Media

A Tool to Monitor Customized Metrics on a Daily Basis

As Vistar Media moved toward a real-time system, it was important to understand whether their partner networks had reported all of their ads in a short period of time. Vistar Media now uses Datadog as a daily monitoring tool to get a feel for what networks are actively sending requests to their servers, what live campaigns are running smoothly, and whether the right networks are requesting ads. “I always have Datadog up on a daily basis to debug issues with integrations or just to make sure that live campaigns are running smoothly”, said Kennedy. By using Datadog to create customized graphs, Datadog became Vistar’s window into how each partner network was performing. “Each network that we work with has different requirements. In terms of connectivity of their networks, we are always dealing with different frequencies and rates of requests each day,” said Kennedy. Some of Vistar Media’s partners operate on a real-time basis, while other networks request a full day’s worth of ads in advance. The wide diversity in partners has made customization key since the monitoring needs for each partner varies drastically. “There are days where we see weird trends of requests coming in,” stated Kennedy. Vistar is able use Datadog’s custom graphs to catch the anomalies or concern areas in their system on a real-time basis.

Fixing Issues Before They Become Noticeable

Going forward, Vistar Media is looking to create separate dashboards for each ad network that they work with. This will enable Vistar Media to “gain more detailed metrics for each individual media owner,” stated Kennedy. The Vistar Media team will be able to take these detailed metrics and use them to quickly identify potential problem areas, improving Vistar Media’s ability to solve problems as soon as they are detected.

All our jobs emit Datadog events. This helps us gauge performance. If we need to fix something this helps us determine it. Before we had to go through a bunch of logs. Now it’s in one place.

— Gna Phetsarath, Director of Technology, Sociocast