

ANODOT'S EYE ON DATA PROTECTS EYEVIEW'S REVENUE

Eyeview is a video advertising technology company that provides brands with ROI on their video advertising spend. Eyeview's VideolQ® platform infuses consumer, brand and retail data into a results-driven decisioning engine to programmatically deliver 1-to-1 personalized video. VideolQ provides best-in-class access to highly viewable and guaranteed fraud-free inventory across television, desktop, tablet and mobile. Eyeview's platform can be provided as a managed service by Eyeview's team of analysts, video producers, and campaign experts or through a self-service interface.

Headquartered in New York City, with offices in L.A., Detroit and Chicago, Eyeview works with hundreds of brands and their agencies across Retail, CPG, Auto and Travel.



Company: Eyeview

Problem:

Creeping thresholds and alert storms.

Benefits of Using Anodot:

Anodot crunches Eyeview's immense data streams in real-time, and alerts on issues in an efficient, prioritized method.

BACKGROUND: METRIC-FOCUSED COMPANY

Because of the nature of the Real-time Bidding business, Eyeview continuously deals with massive amounts of traffic, and needs to make complex decisions with minimal latency. It is an intensely metric-focused company with an enormous number of indicators and data streams. The company has a spectrum of around 200 thousand metrics from specific scenarios and behaviors within code to broad business metrics.

"With 200,000 requests per second that need to be evaluated in under 30 milliseconds, we're a very high volume, low latency, high throughput system," explained Gal Barnea, Eyeview's CTO.

CHALLENGE: CREEPING THRESHOLDS, ALERT STORMS AND MORF

The engineering team and executives at Eyeview must have access to the system's precise status at every given moment, and to identify abnormal behaviors as quickly as possible. This requires having a good understanding of the data trends, so that any issues will stand out.

However online advertising metrics vary depending on the hour and the day of the week. Typically, more people will start viewing online ads in the morning, trending upwards and peaking at lunchtime, decreasing during rush hour, then peaking in the late evening (prime time), and then staying very low overnight. Variability is affected by weekends, events like Black Friday, seasonality and more. Such variability challenged the static thresholds the team had set up to the point of uselessness; they were constantly triggering alerts. In addition, Eyeview's traffic was growing rapidly, so the thresholds needed to be continuously increased.

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Gal Barnea, Eyeview CTO

"Many business-facing thresholds needed fairly frequent maintenance. As the company was growing dramatically, every few weeks we needed to tweak the thresholds to the new reality," Gal said.

The problem of business-aware alert thresholds was compounded by the fact that each time an issue arose with the system, many email alerts could be triggered, some reflecting the root cause but many reflecting downstream derivative issues. There was no way for the recipients to determine which alert was most crucial, or how the different alerts interrelated.

"We've had multiple occurrences of 'alert storms' where a single issue triggered hundreds of downstream alerts, all firing at the same time, and we realized we needed a better solution," Gal said.

ANODOT PROTECTS AGAINST REVENUE LOSS

With this massive amount of business-critical data and metrics, Eyeview recognized the need for an anomaly detection platform that improved its alerting method. The company decided to implement Anodot, which is capable of crunching Eyeview's immense data streams in real-time, and alerting on issues in an efficient, prioritized method.

Using proprietary machine learning, Anodot learns the normal behavior of each metric stream, including variability and seasonality, and can then identify anomalous behavior as soon as it happens, without waiting for the data to reach a pre-defined threshold. Thus Anodot delivers accurate and timely warnings when things go wrong, and provides rapid signals for positive anomalies as well.

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Eyeview's most critical metric, the one that brings the revenue, is the number of ads served. With the data so mutable between times of day and even different days, pinpointing whether there was a real decrease of 20% is difficult. And then, as Eyeview works with partners, it must determine quickly whether changes in ad serving come from the partner's side. Anodot correlates among multiple related anomalies to eliminate alert storms, quickly identifying and ranking the most important anomalies, and providing crucial information to get to the root cause quickly.

"For me, the main value of Anodot is being a single system monitoring, detecting, and alerting on everything that happens within Eyeview," Gal said. "Anodot adds another tier of protection to company revenue."

NEXT STEPS: BUSINESS METRICS

Now that Anodot is firmly entrenched in Eyeview's large engineering team, moving forward, Eyeview intends to expand the use of Anodot to its business team for the monitoring of revenue, delivery and financials.

Ad Tech is known for very high volume data and complex patterns that change by time of day and from day to day. Static thresholds are incapable of accommodating these patterns and providing accurate, preemptive alerts. Anodot's proven ability to make sense of complex data to deliver accurate and valuable anomaly alerts will help the Eyeview team's ability to run effectively and efficiently, serving video advertising worth hundreds of thousands of dollars per day.