Anura.io uses MySQL to reduce wasted advertising dollars spent on fraudulent traffic by as much as 90%

Customer:
Anura.io

Product:
MySQL Cluster Edition

Industry:
Software

Company Size:
Employees: 28

Founded:
2003

Website:
Anura.io
eZanga.com

As more and more companies make the transition into the digital age, they are quickly discovering that higher volumes of traffic do not automatically translate into more business. Largely due to the relatively unregulated nature of the online advertising market, non-human bot traffic is on the rise and is expected to cost advertisers upwards of $7 Billion in 2017 alone. By 2025 this number is expected to jump to a staggering $50 Billion or 10% of the overall traffic purchased by digital advertisers. [1]

Leveraging 13 years of in-house advertising expertise, the team at eZanga stepped up to address this growing threat by launching Anura.io. This SaaS based solution, originally developed on MySQL Community Edition, leverages billions of verified end-user data points to identify true users over bad actors. This level of detail allows Anura.io to be more versatile, resulting in a more refined fraud detection platform when compared to those leveraging vanity metrics.

In order to bring Anura.io to market, the eZanga team knew they needed a powerful, yet flexible, database solution capable of supporting rapidly growing workload without the threat of eventual sluggish performance, data loss, and long-term scalability limits. After researching numerous technologies, it was concluded that MySQL Cluster would represent the best long-term solution to scale out without delays in service to their clients.

Challenges

- Deploy Anura.io on a robust solution capable of supporting an ever-growing workload of over 2,000+ requests per second at launch, all while also reducing operating and infrastructure management costs

- Reduce the overall complexity and total time investment needed to move from a dev test environment to a production ready environment

- Ensure the ability to scale both vertically and horizontally while also maintaining a competitive edge

- Eliminate the risk of costly downtime and enable safeguarding of all customer data

Results

- Utilized MySQL's High Availability feature, ensuring Anura.io is able to continue running their 100 point user inspection metric with no additional latency, even with growing workloads beyond the current 2,000+ requests per second

- Incorporated MySQL Cluster Manager into daily operations allowing for continued fine-tuning across multiple server environments

- Eliminated unnecessary overhead by following officially documented best practices and working with MySQL support to continually optimize their environment

- Transitioned from initial development on MySQL Community Edition into a production-ready instance running on MySQL Cluster Edition in under 6 months

- Enabled Anura.io to provide uninterrupted 24/7 service to their customers by implementing MySQL Cluster Edition's auto-sharding and replication features

Why Oracle MySQL?

The eZanga team compared a number of SQL and NoSQL based solutions including Galera, Couchbase, RocksDB, and several others before ultimately deciding to standardize on MySQL Cluster to support Anura.io. This decision was largely based on the need to provide a completely redundant, high performing, and uninterrupted service to their customers. By leveraging the native MySQL Cluster Edition auto-sharding system and robust backup, the eZanga team ensured that Anura.io will be up and running 24/7, 365 days per year.

> **" I love it. It makes my life a lot easier. "**
>
> – Joe Rodichok, Director of Engineering and Technology

"We needed to ensure that if any problems did occur, that not only would our data be safe and secure, but that our customers would not see any kind of performance impacts on their side. I can rest easy at night knowing that even if we lose a database node at 3am, our system will
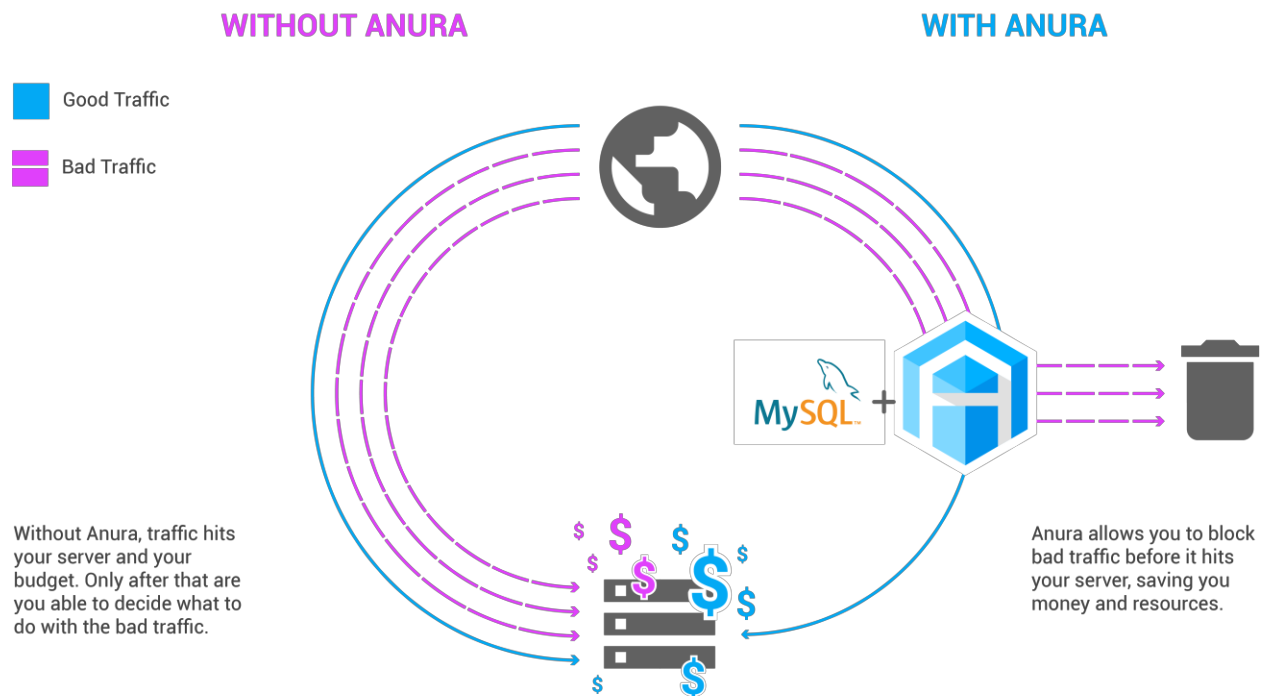
continue to operate without any service disruption." - Joe Rodichok, Director of Engineering & Technology at Anura.io

In addition to the top of the line performance enabled by MySQL, maintenance and upkeep was also a major concern for the Anura.io team. With millions of data points collected every day, flexibility was an important factor allowing for the team to tweak the product as it grows. In order to accomplish that, My Cluster Manager was implemented.

"I love it. It makes my life a lot easier," said Rodichok. "Instead of manually updating the environment through shell scripts and configuration files, I just run My Cluster Manager. It just makes life managing the cluster really easy."

How It Works

Unlike traditional ad-fraud detection companies, who only check to determine if a device is real or not, Anura.io takes a deep dive into each user by sending them through a gauntlet of over 100 data points in order to provide metrics on the user. These metrics give Anura.io the ability to determine, with near one-hundred percent confidence, that the user is who they say they are – rather than simply taking a guess.

WITHOUT ANURA   **WITH ANURA**

Good Traffic

Bad Traffic

Without Anura, traffic hits your server and your budget. Only after that are you able to decide what to do with the bad traffic.

Anura allows you to block bad traffic before it hits your server, saving you money and resources.

Origins of Fraudulent Traffic

Every day there are new tools, methods, and technologies being used by nefarious actors to commit online ad-fraud. As such, the standards and practices being developed by anti-fraud companies like Anura.io are constantly being refined.

In order to gain a better understanding of how fraudulent traffic originates, Anura.io recently commissioned a study involving two apps on the Google Play Store and a single mobile device. While set aside during a single 24-hour time period with no human interaction, the device managed to request 3,061 advertisements with an estimated 169 of those requests being successful.[2] While this does not sound like much, this was the output of only two apps on a single device. Current estimates indicate that there are over 1,300 similar apps in the Play Store today. Multiply those 1,300 apps across a number of infected devices and the massive scale of app fraud quickly comes apparent, potentially amounting to billions in lost revenue.

As the online advertising industry continues to grow, and fraudulent clicks continue to try and penetrate the market, eZanga and the team at Anura.io will be there to combat that.

To learn more please visit www.anura.io and www.ezanga.com

[1] https://cdn.anura.io/downloads/anura_year_long_fraud_study.pdf
[2] https://cdn.anura.io/downloads/anura-mobile-app-fraud.pdf

About MySQL

MySQL is the world's most popular open source database. With its proven performance, reliability and ease-of-use, MySQL has become the leading database choice for web-based applications, used by high profile web properties including Facebook, Twitter, YouTube, Yahoo! and many more.

Oracle drives MySQL innovation, delivering new capabilities to power next generation web, cloud, mobile and embedded applications.

MySQL is also now available on Oracle Cloud, delivering a secure, cost-effective and enterprise-ready MySQL database service for your applications.

For more information about MySQL, please go to www.mysql.com or http://cloud.oracle.com/mysql