

ClearScore Makes the Grade With Instana

As an emerging Fintech company, ClearScore prioritizes efficiency and agility, leading to fantastic growth. In the early years of the company's existence, it struggled to find an APM solution that could deliver the visibility required for monitoring and managing its Docker-based microservices environment efficiently.

After considering several APM options, ClearScore adopted Instana's application monitoring solution for its next-generation, microservices-native functionality. The result has been a vast decrease in the amount of manual configuration required from ClearScore's DevOps team, as well as more detailed, context-aware monitoring insights.



The Challenge: Monitoring an Agile Microservices Environment

When ClearScore began operations in 2015, the company relied on a simple software stack, which consisted of a single monolithic Java application running on on-premise bare-metal servers. ClearScore's DevOps engineers were able to monitor this environment using a combination of custom-built monitoring tools based on StatsD, as well as a legacy commercial APM tool.

Yet the company's monitoring needs quickly changed as its software environment grew larger and more complex. It migrated from on-premise infrastructure to virtual servers hosted in the AWS cloud, and the company's developers used Scala to rewrite its application as a series of microservices hosted using Docker containers.

Today, ClearScore's production infrastructure consists of about fifteen microservices hosted by two hundred Docker containers, according to Barry Laffoy, DevOps Engineer at ClearScore.

ClearScore's legacy monitoring platform was ill-equipped to support this configuration. "Simply maintaining the monitoring system became almost a full-time job," Laffoy said. This was because the APM tool that the company was using lacked native support for microservices and containers. It also provided only basic support for Scala.

Achieving Intelligent Monitoring with Instana

By the summer of 2017, as ClearScore celebrated its second anniversary, its DevOps team began searching for a better monitoring solution. After testing several commercial platforms, the company settled on Instana.

“Instana clearly and quickly became the obvious choice because the technology stack that Instana supports fit our needs perfectly,”

– Barry Laffoy, ClearScore DevOps

Those needs included native support for monitoring microservices and containers without requiring significant manual configuration.

Laffoy continued:

“One thing I love about Instana is that all of the configuration stuff happens automatically,”

He added that Instana delivers intelligent monitoring, which represents a significant improvement over ClearScore’s previous monitoring solution. In the past, Laffoy said, the company’s monitoring functionality was limited to receiving alerts when preconfigured thresholds were crossed.

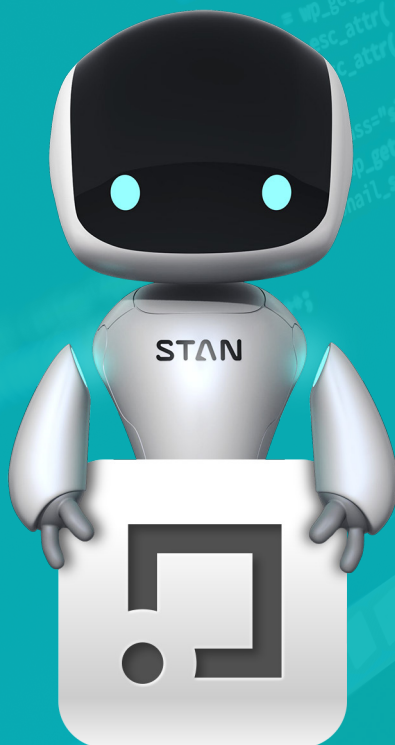
This approach did not work well in an agile microservices environment because the load patterns of many services are inconsistent, making it difficult to establish a hard-coded baseline for normal operations.

For example, under ClearScore’s legacy monitoring platform, a slight increase in website traffic might trigger an alert, even though the increase reflected normal activity. This led to false positives that distracted the company’s engineers.

It also necessitated a great deal of manual configuration:

“Every time somebody changed something — for example, an endpoint changed, or we added a microservice — we had to configure an alerting policy for it manually,”

Laffoy explained.



The Result – More Efficient DevOps and Better Service Quality

Instana's intelligent monitoring solution has eliminated this challenge. ***"The Instana approach to generating alerts is quite different,"*** Laffoy said.

Using machine learning and contextual data, ***"Instana generates alerts when a situation looks significantly out of the ordinary,"*** rather than simply alerting based on preset thresholds, he explained.

As a result, Laffoy and his team receive monitoring notifications about incidents that matter faster than they did from their previous monitoring solution. They also experience many fewer false positives, and because Instana automatically configures alerting policies, they now spend little time on manual configuration.



Leveraging Advanced Instana Features

ClearScore has fully rolled out Instana for monitoring its development, staging and production environments.

Going forward, Laffoy and his team plan to set up Instana for website end-user monitoring and for direct monitoring of their databases as well. By deploying Instana across their entire infrastructure, they will gain a single, holistic monitoring system to streamline their operations, according to Laffoy.

ClearScore's DevOps engineers also look forward to integrating Instana more closely into their DevOps delivery processes in order to gain the monitoring data and insights that enable continuous improvement of application performance and efficiency.