



trax

anodot

Case Study

Anodot Cloud Helps Trax Retail Reduce Tens of Thousands of Dollars from Its Monthly Cloud Bills

About Trax Retail

Trax is the driving force of the store of the future. The world's top consumer goods companies and retailers use the Trax cloud platform to gain the power to see what happens at the shelf and the agility to delight shoppers in new ways. Armed with Trax data and insights, retailers gain granular, SKU-level visibility to changing store conditions. Trax is a global company with hubs in the United States, Singapore, China, France and Israel, serving customers in more than 90 countries worldwide.

The Challenge

Trax operates a complex, multi-cloud platform that currently runs on both AWS and Google Cloud. The company has several accounts on each cloud. The environments themselves are complicated, with Kubernetes clusters and numerous microservices. There are a lot of moving parts that are not easily tracked. The cloud providers' native tools fall short of Trax Retail's needs to closely manage cloud costs at the workload level.

The Solution

Anodot Cloud provides the ability to measure the different workloads that happen inside a single server in the cloud. This allows Trax to measure a critical KPI, the "cost per image processing," which shows how effectively the Trax system is operating. Anodot Cloud delivers real-time alerts for unexpected changes in cloud usage and recommendations for cost savings.

Trax Retail Drives Better Experiences for Retailers and Their Customers

Consumer product groups and retailers around the world depend on Trax Retail to collect, measure, and analyze what is happening at the shelf level in stores. Using shelf cameras, image recognition software, revenue-focused analytics, and app-based alerts, Trax provides real-time visibility and prioritized solutions to its customers. This helps them optimize operations and increase sales by having continuous knowledge of how products are being made available to shoppers.

A key function of the Trax platform is to take photos of store shelves, upload the images to the cloud, process them through various engines, and deliver information back to the customer. This gives rise to one of Trax Retail's most important KPIs: the cost to process each of those images. This cost is calculated based on the time it takes to run various applications in the cloud, i.e., cloud usage. With large volumes of images processed every day, this system represents a large source of Trax's cloud costs.



One Key Use Case Drove Requirements for a Cost Monitoring Tool

Mark Serdze is Director of Cloud Infrastructure at Trax Retail. Serdze says that when they began looking for a cloud cost management tool, they were very focused on this particular use case. "This KPI gives us a good idea of how effectively our system operates," he says. "When we moved into Kubernetes, because of the way this platform operates as a cluster with scaling up and down, we lost the ability to break down the billing through the native cloud tools. We used to invest a lot in tracking instances but we never had an ability to measure the different workloads that happen inside a single server in the cloud."

The infrastructure team had spent time developing an internal API tool based on Google Cloud BigQuery and Tableau. "This tool displayed the data in a way that made sense to our business so we could present it to our financial executives," says Serdze. "However, it missed a layer of data and our system wasn't very useful without it. We tried to develop it internally using built-in cloud solutions and internally developed tools, but it required a considerable development effort from our team".

Serdze says this was the main motivation behind looking at Anodot Cloud. "Getting to the level of detail that we need is just part of what this tool offers. In the end, Anodot Cloud won our business," says Serdze. "In addition to meeting our requirements really well, Anodot Cloud is a SaaS offering, so we didn't need to install and maintain any kind of infrastructure within our cloud environment. Also, Anodot can keep up with our crazy scale usage patterns. We crashed the other tool with our large volume of images."

The logo for Trax, featuring the word "trax" in a lowercase, sans-serif font. The letters "tr" are purple, "a" is yellow, and "x" is purple.

"We used to invest a lot in tracking instances but we never had an ability to measure the different workloads that happen inside a single server in the cloud."

**Mark Serdze - Director of
Cloud Infrastructure**

Cloud Cost Monitoring is Critical to the Business

Serdze calls cloud cost monitoring “super critical” to Trax Retail’s business. “One aspect of our business is to replace manual in-store labor at various retailers with our automated solution. Anodot Cloud is an AI-based automated solution. We constantly need to make sure that whatever algorithms we develop can be operated in the most efficient way, cost wise, so it is crucial for us to track them,” says Serdze.

Anodot Cloud allows Trax to monitor cloud costs in a very granular way. “Anodot can detect in real time the anomalies in different services and new deployments that, for example, affect costs of specific microservices,” according to Serdze. “In contrast, the native tools from the cloud providers don’t give as much visibility. We can monitor our services but only retroactively and not with the level of granularity that we want.”

Serdze gives an example of an anomaly that Anodot would be able to detect and the action his team would take based on the alert. “We have a price recognition system where we recognize price tags on products on a store shelf,” says Serdze. “Using Anodot, we can see sudden changes in the processing price and can act accordingly.”

“This hasn’t increased our whole cloud cost because we have other factors as well. We have the in-flow, which is not the same all the time, so it’s not like we saw one day where our cloud costs are thousands of dollars more. The overall cost might actually be reduced but this one particular price recognition service has increased in cost. Anodot alerts us immediately, so we can easily track it to a specific code deployment or a specific change in the system to understand why this service suddenly costs so much more. It could be something as mundane as a change made to a SQL query that suddenly takes more time to pull the data from a database. Once we are aware of the anomaly, we can take steps to fix the problem.”





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The Benefits Are Myriad

There are several teams within Trax Retail that are the main users of Anodot Cloud. The infrastructure team does the day to day tracking of cloud costs and resources. The data services team implements the API connections. “In general, Anodot Cloud allows us to be more responsive to trends because the data is more updated and live than what we were previously used to,” says Serdze. “In the past we would pull this data and aggregate it once per month. Now we are doing it continuously. Mostly it reduces the toll on our DevOps team and allows us to focus on optimizing our production environment rather than creating cost tracking systems.”

Serdze says there is one key thing they can do with Anodot Cloud that they could not do before. “The most important thing is that we can connect between the usage patterns of our microservices inside the Kubernetes clusters and their actual costs, which is something that’s very hard to do in the native cloud tools.”

Trax is also interested in the cost savings recommendations that Anodot provides. “We’re very aware of the recommendations feature. We are looking at how we can use this going forward. It’s convenient that the information is aggregated in one place,” says Serdze. “In the meantime, I can say that Anodot Cloud definitely saves us resources and manpower. For example, we discovered with Anodot that we were able to reduce tens of thousands of dollars from our monthly bills.”

The company is still early in its implementation of Anodot Cloud. “The main reason we chose this product is its ability to integrate with our own business intelligence system,” according to Serdze. “We haven’t developed that integration yet, but once we do, we expect to see an even wider range of benefits of using this tool.”



Business metrics are notoriously hard to monitor because of their unique context and volatile nature. Anodot’s Business Monitoring platform uses machine learning to constantly analyze and correlate every business parameter, providing real-time alerts and forecasts, in their context. Our patented technology is trusted by Fortune 500 companies, from digital business to telecom.

Anodot reduces detection and resolution for revenue-critical issues by as much as 80%. We have your back, so you’re free to play the offense and grow your business.

Anodot is headquartered in Ashburn, Virginia and Ra’anana, Israel, with sales offices worldwide. To learn more, visit us at www.anodot.com

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