

Ride-share leader uses Anodot to identify business risks in real time

Lyft optimizes its business with unique anomaly detection



Lyft is a leading ride-sharing organization valued at over US\$11 billion. The company depends on its mobile apps and backend infrastructure to run its business. Undetected problems, such as passengers not being matched with rides in a timely manner, can cost the company revenue, customers, and market share.

As a data-driven organization, Lyft generates a huge number of metrics. The amount of data to be tracked increases exponentially as the volume of riders rises. For example, Lyft tracks the number of unique values associated with each data point – such as user IDs, email addresses, and account numbers. This makes it crucial to learn when specific events, such as a rider being paired with a driver, do not happen as expected.

Due to the sheer amount of data available, tracking every anomaly simply is not scalable; even a subset of the data would require specific tools to deal with false positives, to handle missing alerts, and to face changing thresholds. As Lyft grew, company leaders knew that late discoveries of anomalous events could impact revenue, as well as customer satisfaction and brand strength.

The decision to use Anodot

Lyft knew that it needed an automated way to detect meaningful anomalies that could reveal the possibility of larger problems. The company identified Anodot as a potential solution. **Anodot's AI-powered analytics** uses advanced machine-learning algorithms to overcome the limitations that humans bring to data analysis, identifying potential problems in real time without having to manually inspect multiple dashboards. Anodot automatically learns the data's normal behavior through time series analysis,

Anodot: Autonomous AI-powered analytics built on AWS

- Detects business incidents in real time
- Conveys the incident scope and business impact
- Identifies the root cause quickly so that solutions can be implemented before small matters turn into major business issues

Challenge

A large ride-sharing company depends on the accuracy of its mobile application data. The company needed an automated way to accurately detect anomalies that could signal larger problems and require immediate attention.

Solution

Implement machine learning software for time-series data that can cut through volumes of data to highlight meaningful anomalies in real time to focus on critical business issues.

Results

- Faster visibility to anomalies that could signal larger business problems
- Automated detection models for incident inspection
- Cost savings: No need to invest in large in-house data science or monitoring teams to build complicated anomaly detection models or try to manually inspect dashboards for anomalies



Anodot

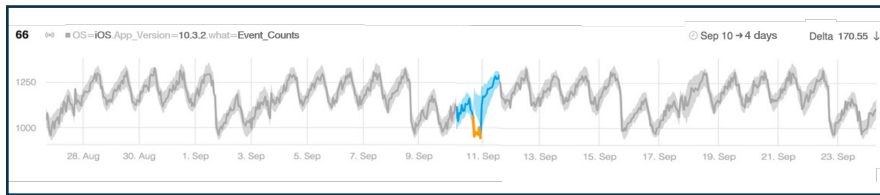
Anodot: AI-powered analytics for detecting business incident in real time

Anodot is an AI-powered analytics solution that discovers revenue leaks and brand-damaging incidents in real time. Its automated machine learning algorithms continuously analyze all your business data, detect the business incidents that matter, and identify why they are happening by correlating across multiple data sources.

- Help prevent revenue loss
- Discover glitches early – before negative impact
- Ensure high levels of customer service
- Process data to guarantee data integrity
- Find issues that risk performance and availability
- Reveal potential new sales opportunities Faster visibility to anomalies that could signal larger business problems

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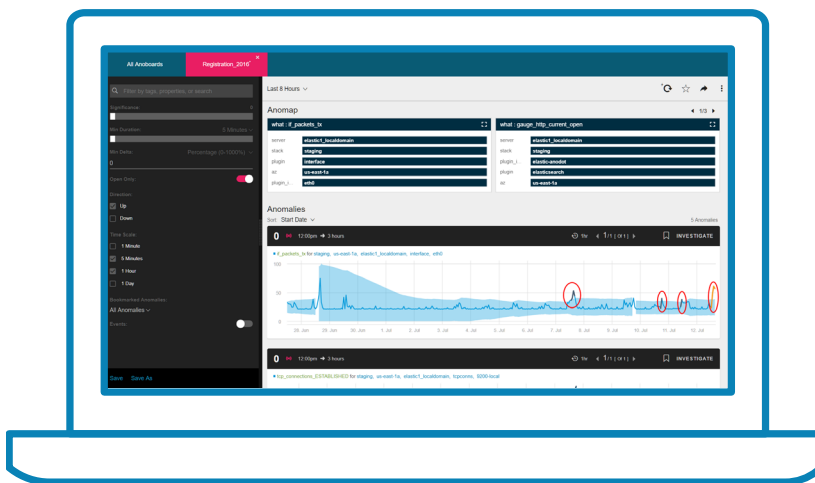
Ira Cohen
Chief Data Scientist for Anodot



then identifies any deviations in real time, grouping and correlating multiple anomalies, and alerting on significant events. The accuracy of Anodot’s root cause analysis improves as the data stream grows, aggregating and learning from the data generated by the mobile app.

With Anodot, Lyft receives real-time alerts through email and Slack for issues that need immediate attention. These alerts show the normal baseline for the metrics, the deviation from the baseline, historical information, and individual metric measures, providing context around the alert. After receiving a notification of irregular behavior in one or more business metrics, team members can investigate issues to determine whether or not they are expected, and take action to rectify problems.

After releasing major app upgrades, Anodot helps Lyft identify potential issues.



Anodot: Built on AWS

Anodot built its time series analysis solution on Amazon Web Services (AWS) to take advantage of the infrastructure, scalability, and elasticity of the cloud. The built-in managed infrastructure allows its engineers and data scientists to focus on what they excel at: building an anomaly detection solution for organizations that offers a robust look at all company metrics with the automated ability to quickly detect potential problems.

Ira Cohen, co-founder and Chief Data Scientist for Anodot, says that the mature, reliable architecture offered by AWS made it the obvious choice when he was evaluating cloud infrastructure providers to host Anodot's solution. "We had heard a lot from other companies who had used AWS about the ease of use – especially how easy and economical it was to scale out, without any IT effort," Cohen says. "It was a no-brainer for us to choose AWS."



The benefits for Lyft

Using Anodot and AWS, Lyft can track large amounts of metrics without having to configure thresholds. Anodot's machine learning solution learns the expected behavior for each metric, making it possible to quickly identify abnormal behaviors.

The ease of creating real-time alerts and the correlations between anomalies gives the customer the ability to identify issues in real time and to quickly understand the scope and the root cause of the issues.

Anodot helps Lyft:

- Detect business incidents in real time.
- Increase visibility into root causes of events across all areas of the company, including data quality issues, revenue spikes, and customer service issues.
- Significantly reduce the time between incident detection and average time required to resolve issues.



ABOUT ANODOT

Anodot illuminates business blind spots with AI-powered analytics to identify problems before they cause revenue leaks or brand-damaging incidents. Its automated machine learning algorithms continuously analyze all your business data, detect the business incidents that matter, and identify why they are happening by correlating across multiple data sources. Customers in fintech, ad-tech, web and mobile apps, and other data-heavy industries use Anodot to drive real business benefits like significant cost savings, increased revenue and upturn in customer satisfaction. Founded in 2014, the company is based in Silicon Valley, with research and development offices in Israel, and sales offices worldwide. Anodot is an AWS Machine Learning Competency Partner. Learn more about [Anodot for AWS](#).