## anod<sup>o</sup>t

### Find and fix business incidents in real-time with Al-powered analytics

Automated time series analysis for anomaly detection on Amazon Web Services



# Machine learning for detecting problems and opportunities in real time across all data

To quickly find problems as soon as they arise, today's data-driven organizations are adopting *automated anomaly detection* across massive and unsupervised time series data streams. Deploying a machine learning (ML) model, organizations can determine the expected behavior of large data series made up of time-stamped events. These models become more and more accurate as they consume more data. This approach to anomaly detection can identify the key outliers that could indicate serious problems faster.



An automated business incident detection solution can easily handle enterprise-scale challenges in real-time that traditional business intelligence (BI) dashboards and human teams could never accomplish. This leads to far faster identification of root causes and monetization of the solution. Deploying this type of solution with a software-as-a-service (SaaS) model, taking advantage of the cloud for agile and affordable scaling, can help your company find problems faster and identify opportunities earlier.

This eBook describes multiple use cases for using machine learningpowered analytics with automated anomaly detection capabilities. You'll learn how three different industries are deploying business incident detection solutions today, without the need for dedicated data science teams or large investments in compute-heavy infrastructure.





# Web-based businesses



Web-based businesses are click- and usage-driven, where customer satisfaction and recurring revenue are intricately tied together. Monitoring millions of metrics with updates across global operations is a huge undertaking. Errors that impact specific platforms or features may not appear immediately, ultimately affecting customer satisfaction.

In addition to detecting potential problems, automated data analysis can also be used to optimize operations. Knowing the optimal purchasing path for a website can optimize the customer experience, increase conversion rates, and reduce customer churn. Rapid insights can help analysts identify the most successful marketing and promotional programs so they can be duplicated or promoted for improved overall results.

Web-based businesses can use automated anomaly detection to analyze immense quantities of metrics relevant to the business. Automation reduces the delays associated with manual analysis by funneling data from thousands of sources and millions of website users into one integrated analytics platform.

- Identify the source of web-driven revenue anomalies in real time before they negatively impact profits.
- Detect technical errors, including mistakes in programming updates or APIs to enhance quality assurance process during and after new service roll-outs.

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• Instantly analyze the results of marketing campaigns, including email and online advertising.



# Financial services



Financial services organizations have expanded their offerings far beyond traditional banking. Today's organizations are developing their own operations, ranging from alternative finance platforms to AI-powered chatbots, with the end goal of creating responsive 24/7 customer services that appeal to a new generation of consumers and investors. As a result, financial services institutions are revisiting – and in many cases re-engineering – their entire IT infrastructure and service offerings to compete effectively and expand to new markets.

Data analysts in financial services crunch massive amounts of data generated from websites and mobile applications to ensure that their millions of users are receiving the highest possible level of service. These organizations must be up and running 100% of the time, as their success is predicated on a consumer perception that they are fully reliable. Any performance anomalies must be detected and addressed quickly, or consumer trust could be at risk.

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Financial services organizations can use automated business incident solutions to detect and diagnose issues early, resolve them quickly, and take preemptive actions, before they turn into crises.

- Identify unusual increases in error rates across multiple payment entities, geographies, and devices.
- Assure the health of your customers' integrations.
- Tracking partner offers for personal finance apps and websites to identify campaign effectiveness.
- Spot critical bugs in crowdfunding sites in real time, before they become emergencies.



#### Gaming



Mobile and social games are available to anyone with a smartphone, offering gaming companies the chance to collect and analyze data to find new opportunities and get actionable insights on their customers. Because users can play anytime, anywhere, and on any device, anomaly detection presents a massive challenge to gaming companies. When dealing with an immense volume of noisy data (numbering into the billions of events per day), gaming companies must have the ability to access a single view of their data to identify problems that could negatively affect operations.

Gaming companies can use automated anomaly detection to quickly detect and diagnose unique issues related to gaming operations early, resolve them quickly, and take preemptive actions, before they result in reputation or revenue damage.

- Capture and analyze data related to app updates, in-app purchases, and software releases. Flag anomalies that occur outside of an expected range, so that the root cause of the issue can be identified and a fix implemented quickly.
- Spot delays in in-app purchases or responses to special offers with real-time optimization and machine learning, to ensure there are no disruptions in income.
- Sustain high scalability so that a newly-launched game will be able to handle a sudden influx of players. Scale to the massive amount of metrics gaming businesses need to track, while maintaining real-time responsiveness.

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#### Anodot: Al-powered analytics on AWS

Anodot is an Artificial Intelligence (AI) analytics solution that discovers business incidents in real time, preventing revenue loss and brand damage by remedying urgent problems faster and capturing opportunities sooner. Its automated machine learning algorithms continuously analyze all business data and provide accurate alerts in real time whenever an incident occurs, even for questions one never thought to ask. It detects the business incidents that matter, and identifies why they are happening by correlating anomalies across multiple streaming data sources. Unlike traditional BI solutions, Anodot features built-in data science, so any user can easily gain actionable business insights without data science expertise.

Anodot's SaaS platform is built on Amazon Web Services (AWS), using the same scalable, highly available cloud infrastructure that organizations around the world trust to power their most compute-heavy workloads. Anodot syncs seamlessly with the data stored in your AWS environment, and provides your teams with a single, unified system for both business and IT metrics.

Anodot helps your organization:

- Prevent revenue loss.
- Discover glitches early on before negative impact.
- Ensure high levels of customer service.
- Process data to guarantee data integrity.
- Find issues that risk performance and availability.
- Reveal lucrative sales opportunities.

#### LEARN MORE ABOUT ANODOT



