GRANULATE

AppsFlyer

# AppsFlyer Decreases Costs By 30% Leveraging Granulate For Spark and Kafka Consumers Clusters

With 0 Code Changes

| Spark Cluster Annual Cost Reduction | Kafka Consumers Cluster Annual Cost Reduction | Annual Cost Reduction |
|---|---|---|
| 25% | 35% | 30% |

# About AppsFlyer

**Mobile Attribution & Marketing Analytics - HQ: San Francisco, USA - Employees: 1000**

AppsFlyer, a global attribution leader, empowers marketers to grow their business and innovate with a suite of comprehensive measurement and analytics solutions. Built around privacy by design, AppsFlyer's attribution platform takes a customer-centric approach to help 12,000+ brands and 6,000+ technology partners make better business decisions every day.

# The Challenge

As the market leader of the growing mobile attribution market, AppsFlyer heavily relies on AWS usage, and with the rapid growth also comes increased demand for their AWS infrastructure and growing compute costs.

AppsFlyer infrastructure is comprised of a wide range of services and technologies. Starting with one service out of around 40 in each cluster type, Granulate was deployed to optimize 2 services: Spark and Kafka consumers. The results of the first two services demonstate the cost reduction potential that AppsFlyer can achive with Granulte's application-driven resource management optimization.

# Why Granulate

AppsFlyer's highly professional team was looking for an innovative complementary solution to the already implemented best-practices and cost-management solutions.
The team needed a new approach that will support the company's fast-growth and scalability requirements without requiring R&D efforts or application changes.

Granulate was able to meet all of AppsFlyer's needs, offering an additional significant cost-reduction without requiring any code changes and with a simple installation. Granulate was able to optimize the performance and resource utilization of both services allowing AppsFlyer to handle these services with significantly less compute resources leading to a dramatic cost-reduction.

# Results

Kafka Consumers Cluster -
CPU Utilization Reduction: 25% - Cost Reduction: 30%
Spark Cluster -
CPU Utilization Reduction: 30% - Cost Reduction: 33%

Following the activation of Granulate's real-time continuous optimization, AppsFlyer immediately noticed significant performance improvement. Monitoring performance in their Grafana, AppsFlyer has seen 30% CPU utilization reduction in the Spark-Hadoop cluster along with a reduction in the job completion time. They also witnessed similar results in Kafka workers nodes, achieving 25% CPU utilization reduction leading to 30% cost reduction.

These results allowed AppsFlyer to reduce the amount of machines required to handle the services leading to an annual cost reduction of $320,000.

*"With Granulate, we were able to save hundreds of thousands of dollars on two of our clusters without any code changes"*

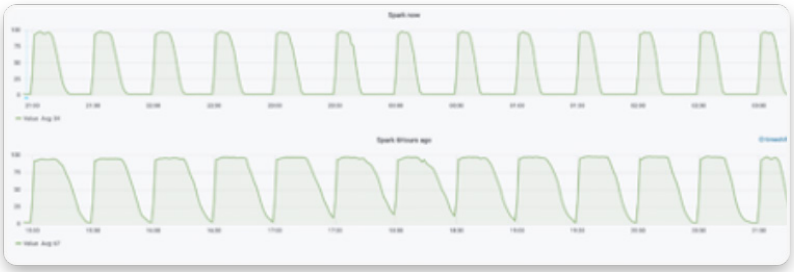
**Eli Zilbershtein, Platform Group Team Leader**

# About Granulate

Granulate provides a real-time continuous optimization solution that can effortlessly improve server throughput 5X, reduce latency by 40% and cut cloud compute costs by up to 60% within several days, with no code changes required.

## Spark Average CPU Utilization Reduction

Figure 1: Spark CPU utilization reduction with Granulate (upper graph) vs. without (lower graph)



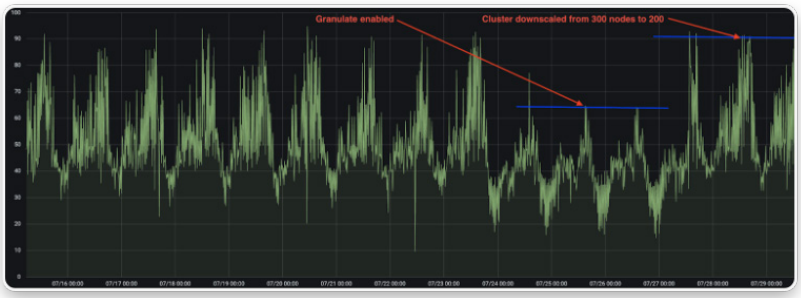



Figure 2 : Spark CPU utilization following Granulate's activation and cluster size reduction

## 30% Reduction In Kafka Cluster Size

Figure 3: Number of machines with Granulate (upper) vs. without Granulate (lower)