Overcoming High Cloud Costs

How a Global OEM Reduced Their Spending by 50%

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A global Original Equipment Manufacturer (OEM) with a strong presence in fleet management has been utilizing cloud computing technologies to transform their business.

They partnered with Egen to develop a comprehensive platform that automates many manual tasks, enhancing efficiency and decision-making.

However, their cloud infrastructure costs were considerably high, leading to a challenge in achieving optimal cost efficiency without compromising the platform's capabilities.

Problem
Rising Cloud Infrastructure Costs

The OEM's cloud infrastructure costs were initially around $400,000 per month. However, as the platform evolved and added more data streams, there was a concern that costs could increase even further, creating a pressing need to find ways to optimize cloud spending.

Challenge
Balancing Cost Optimization with Platform Performance

The challenge was maintaining the platform's high-performance capabilities while reducing cloud infrastructure costs.

The platform was designed to handle complex tasks, such as:

- Ingesting real-time data from 20,000 fleets,
- tracking 13,000 metrics across 100 components, and
- processing anomalous data at 10,000 messages per second.

But the infrastructure relied heavily on EC2 instances and other AWS services to do so.

Results
Significant Reduction in Cloud Costs

Egen implemented a series of optimizations that brought the cloud costs down from approximately $400,000 to $180,000 monthly.

These optimizations included:

- Negotiating a corporate discount with AWS.
- Switching to reserved instances, resulting in a 50% cost cut.
- Resizing docker containers, reducing memory usage from 12-16GB per instance to 4-6GB.
- Cutting Elasticsearch costs by moving to an AWS-managed setup with a combination of hot data nodes, ultrawarm nodes, and an S3-based Data Lake, resulting in 66% savings on the Elasticsearch cluster.

Business Benefits
Improved Cost Efficiency and Scalability

By implementing these optimizations, the global OEM realized significant savings in cloud infrastructure costs without sacrificing the platform's performance.

These cost reductions improved the overall cost efficiency of the platform and enabled the company to scale its services more effectively.

Additionally, the optimizations allowed the OEM to continue enhancing the platform while managing costs, ensuring long-term growth.

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