



# Digital Ad Platform for FinServ Saves \$900K+ Annually with Pepperdata on Amazon EKS

## About The Client:

The customer is a **digital advertising platform** that partners with banks to create incentive programs promoting consumer loyalty. The company then provides its banking customers a secure, anonymized view into how consumers are spending their money.

## Challenge:

As the company's data operations team was migrating their large data workloads to Amazon EKS, **the team was keen to identify additional solutions to reduce their monthly workload costs.**

## Solution:

Following migration to Amazon EKS, the client deployed Pepperdata Capacity Optimizer to improve resource utilization and reduce costs.

**Capacity Optimizer immediately delivered an initial 22% reduction of instance hours (vCPU hours) in the company's Apache Spark and Amazon EMR workloads on EKS.**

## Results:

The customer realized **increased price/performance equivalent to a monthly cost reduction of approximately \$75K.** Having achieved an initial 22% savings, the client is continuing to migrate additional workloads to Amazon EKS and reinvest its savings from Pepperdata Capacity Optimizer into further business growth.

## A Data-Driven Ad Platform Seeking Cost Mitigation Solutions for Amazon EKS

The customer, a large, data-driven, digital advertising platform that partners with banks to operate customer rewards programs, had been running Apache Spark on Amazon EMR to process a high volume of anonymized and aggregated consumer purchase and other behavioral data.

As part of its efforts to minimize infrastructure costs, the customer started migrating these workloads to Amazon EKS. The customer also adopted Karpenter as its autoscaler to automate instance rightsizing upon launching new nodes—for workload optimization at the infrastructure layer.

However, even with Karpenter installed, costs continued to rise in the newly migrated workloads since new nodes were launched despite there being underutilized capacity in existing nodes.

The customer then sought out additional application layer optimization solutions, and chose Pepperdata Capacity Optimizer to further improve its resource utilization and reduce costs.



# Pepperdata: Real-Time, Automated Resource Optimization for Kubernetes

Pepperdata Capacity Optimizer immediately provided the system scheduler with real-time visibility into actual node utilization levels. This visibility enabled more intelligent resource allocation decisions by the scheduler, which could then launch more pods on nodes with available capacity—improving utilization levels and reducing costs.

Pepperdata Capacity Optimizer also enhanced Karpenter's autoscaling capabilities by communicating with the scheduler to ensure new nodes were only spun up when existing nodes became fully utilized—again resulting in improved utilization and reduced resource cost.

Pepperdata Capacity Optimizer real-time, automated resource optimization worked continuously in the background without any need for manual tuning, applying recommendations, or changing application code—freeing the company's data operations team from optimization to focus on revenue-generating projects.

## Immediately Improving Resource Utilization and Realizing Savings in Both Development and Production Environments

The ad platform company achieved its Proof of Value (POV) with Pepperdata in two phases: first in the company's development cluster to quickly validate the solution robustness and cost saving results, and then in the company's production cluster.

Capacity Optimizer immediately delivered a **22% reduction** of instance hours (vCPU hours) for the company's Spark workloads on its Amazon EKS development cluster.

Once installed in the customer's production clusters, Pepperdata Capacity Optimizer then decreased the number of vCore hours required to run these Amazon EKS production workloads, **improving price/performance to the equivalent of approximately \$75K in reduced monthly cost.**

Pepperdata Capacity Optimizer real-time, automated resource optimization worked continuously in the background without any need for manual tuning, applying recommendations, or changing application code—freeing the company's data operations team from optimization to focus on revenue-generating projects.

The company benchmarked its savings by temporarily disabling Capacity Optimizer and observing the resulting 22% increase in costs.

## Reinvesting Savings for Continued Growth

Pepperdata Capacity Optimizer helped this digital ad platform company achieve significant utilization increases for its workloads and cost savings through real-time, automated resource optimization.

The customer can now reinvest its ongoing savings from Pepperdata Capacity Optimizer in continued migration of data workloads to EKS, as well as in further business innovation and expansion.

### About Pepperdata

Pepperdata resource optimization for data workloads on Kubernetes and Amazon EMR automatically increases utilization levels by up to 80% to reduce overprovisioning waste, delivering an average 30% cost savings—automatically, continuously, and in real time—with no application code changes, recommendations, or manual tuning.

Deployed on over 30,000+ clusters, Pepperdata Capacity Optimizer optimizes Kubernetes resources in some of the largest and most complex environments in the world. Since 2012, Pepperdata has helped companies ranging from startups and mid-sized ISVs to top enterprises such as Citibank, Autodesk, Magnite, Royal Bank of Canada, and members of the Fortune 10 save over \$250 million. For more information, visit [www.pepperdata.com](http://www.pepperdata.com).

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