

BroadPeak Partners



BroadPeak Partners—a TechCrunch finalist firm—is now used by a broad mix of Fortune 500 companies to harness the most valuable asset in the business world: Data. The data plumbing capabilities behind BroadPeak’s platform—K3—drives business intelligence, streaming, ETL, and system integration.



Project Dates

NOVEMBER 2018 → FEBRUARY 2019

Executive Summary

BroadPeak’s platform, K3 is a specially designed software that takes data from anywhere and allows users to transform, alter, and unify it through an intuitive user interface. Trading firms, in particular, leverage BroadPeak Partner’s K3 platform to exchange connectivity, position limits, and trade surveillance. The platform is delivered both on-premise and as a hosted application based on what each customer needs.

K3 was already hosted in AWS and leveraging some of the cloud platform's services such as VPC, EC2, S3, RDS. The company engaged Ibexlabs to conduct a review of the setup and provide end-to-end automation of the platform with future customer growth and compliance in mind.

Ibexlabs Solution

Ibexlabs conducted design review sessions with BroadPeak and recommended a rebuild of its cloud infrastructure to provide segregation across multiple environments. The review also took into account the PAAS platform options available from AWS to significantly reduce operational overheads for the company.

AWS NIST Accelerator

Ibexlabs leveraged the NIST Accelerator quickstart for AWS and came up with a multi-account strategy for BroadPeak. The quickstart provides a set of standard deployment patterns which can be used to segregate environments while taking into account roles and responsibilities with strong compliance.

AWS CloudFormation was used to set up Production, Non-Production, and Management accounts. The Management accounts were used to host tools including OpenVPN for providing secure VPN connectivity, Amazon Elasticsearch for logging, and Jenkins for Continuous Integration/Continuous Delivery (CI/CD).

OpenVPN Access Server is a full-featured SSL VPN solution which safely allows BroadPeak to connect securely to the hosting platform securely over the Internet.

VPCs were deployed in each AWS Account and by using multiple Availability Zones, Ibexlabs designed the environment so that an instance in another Availability Zone can handle requests should one fail. This means that K3 receives fault tolerance and stability while mitigating downtime and latency possibilities.

Elastic BeanStalk

Ibexlabs leveraged Elastic Beanstalk for providing a hosting platform for BroadPeak. Elastic Beanstalk optimizes services which BroadPeak was already utilizing such as EC2, RDS, S3, ALB and provides other capabilities such as continuous deployment, autoscaling / healing, patching, etc.

By utilizing Beanstalk, Ibexlabs helped significantly reduce operational overheads for BroadPeak and allowed the development team focus on new features which deliver more value to their customers.

Security, Logging, and Monitoring

Companies like BroadPeak who specialize in processing, managing, and analyzing information require data to be stored appropriately and be accessible when needed. AWS has customized many input, storage, and security services options to achieve exactly this and added in next level object durability.

Ibexlabs optimized the security service AWS Macie in particular for BroadPeak which uses machine learning to automatically locate, classify, and protect sensitive data in AWS environments. Macie also protects data stored in Amazon S3.

Considering BroadPeak's core function, Ibexlabs also leveraged Amazon Elasticsearch. Elasticsearch is a popular search engine and is compatible with BroadPeak for providing full-text search, log analytic capabilities, security intelligence, business analytics, and operational intelligence.

As well as Amazon Elasticsearch, Ibexlabs helped BroadPeak benefit from other elements of the Elastic Stack through Kibana for data visualizations in the form of charts and graphs. A feature which is optimal for a data analysis company. Aggregating logs across the multi-account architecture was also a prime function made easier with ELK.

For robust monitoring, Ibexlabs set up Amazon CloudWatch for BroadPeak that is automatically configured to provide metrics on request counts, latency, and CPU usage. Working in unison with CloudWatch monitoring is Amazon GuardDuty (a managed threat detection service), which sends custom notifications to the BroadPeak team if any malicious security incidents occur.

And finally, Ibexlabs configured the powerful AWS Config for BroadPeak to monitor compliance with security and governance policies as well as to record and track any changes made to the configuration of any other resources in AWS. AWS Config allowed Ibexlabs to write custom rules designed especially around BroadPeak's operations.


Client Testimonial

"Working with Ibexlabs was a pleasure from start to finish. Before we began, they laid out a roadmap for how we would get to fully leveraging all that AWS can do for our business. During the project, their team also took time to educate us for success in the long run.



After we went live, they supported us as we operationalized their efforts. I would highly recommend Ibexlabs to anyone looking for a knowledgeable and flexible company who will work closely with you to ensure you get the best outcomes from your AWS spend."

Vivek Pathak
BroadPeak Partner COO

Services Employed

-  Amazon VPC
-  AWS CloudFormation
-  AWS Elastic Beanstalk
-  AWS Macie
-  Amazon Elasticsearch
-  Amazon CloudWatch
-  Amazon GuardDuty

Other Leveraged Technologies

-  OpenVPN
-  Jenkins



About Ibexlabs

Ibexlabs LLC is a DevOps & Managed Services provider and an AWS consulting partner. Our AWS certified AWS experts evaluate your infrastructure requirements and make recommendations based on your individual business or personal requirements.

e: engage@ibexlabs.com

a: 116 Village Blvd, Suite 200, Princeton NJ 08540

www.ibexlabs.com

