



## Company Overview

TTeam, Inc. provides a valuable service to hospitals throughout the United States by streamlining the pre-op, surgery and post-op processes through an easy-to-use app. This includes a step-by-step breakdown of surgery milestones, the ability to track the performance of every member of the surgical team, and real-time notifications for both the patient and the medical professionals.

## Challenge

As TTeam, Inc. is a hospital-based industry, their AWS environment needed to make protecting healthcare patient data a top priority, and accord with the Health Insurance Portability and Accountability Act (HIPAA), which implements strict guidelines for the handling of personal health information (PHI.)

Health care professionals provide the best care when they are well-informed on every aspect of their patient's medical status. TTeam's service is an invaluable tool to make sure this information is shared with the medical professionals who need it. Yet this information, if compromised, can cause catastrophic personal and professional problems in the lives of patients and doctors. No solution could be implemented without first adhering to the strictest security guidelines.

This required a wide range of technical considerations for TTeam's hosting infrastructure, ranging from data segregation and access management, a centralized security dashboard, and strong network security. Without these solutions in place, TTeam would be forced to spend significant amounts of resources to keep in accordance with the strict requirements outlined by HIPAA. By having a secure infrastructure that met these, TTeam would be able to spend these resources expanding their product market and implementing new features to their application.

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## Why AWS?

Amazon Web Services was the perfect platform to meet ITeam's technical and regulatory specifications. Medical professionals using ITeam's service needed a responsive application that can keep up with the demanding pace of their medical work. The powerful servers and load balancing across multiple availability zones assured that end-point users never experienced service interruptions. Furthermore, AWS' proven track record providing secure and highly available service, particularly in the realm of healthcare, made it the obvious choice for ITeam.

### AWS Service Catalog:

By providing preconfigured, out-of-the-box application stacks, the AWS Service Catalog was an indispensable part of establishing ITeam's hosting infrastructure.. As part of the AWS Service Catalog offering, Ibexlabs was able to centralize management tools related to security, compliance and optimization. This gave ITeam a full, in-depth view of their infrastructure and the ability to respond quickly to a variety of situations.

At the starting stage, Ibexlabs deployed several AWS Catalog products to facilitate a multi-account target state VPC architecture. AWS Transit Gateway was then implemented to assure communication between these applications. In accordance with best practices, Ibexlabs incorporated a IAM Role Base Authentication system with the principle of least privilege. Compute, Database and Storage services received end-to-end encryption both at rest and in transit.

**“Using AWS Service Catalog, we were able to jumpstart ITeam's implementation process without wasting time and resources building everything from scratch,”** said Sridhar Adusumilli, CEO at Ibexlabs.

These applications would be of little help if ITeam was not able to see how everything was performing. Fortunately, the AWS Service Catalog provided a centralized location to manage the logging and monitoring of the entire infrastructure, including the application itself. Along with its automatic security and compliance updates, implementation of the AWS Service Catalog had ITeam well on their way to ongoing HIPAA compliance.

## Security:

Unfortunately, organizations that handle large amounts of patient data face the constant threat of data compromise. Worse, these threats grow more sophisticated every day. Very few companies, ITeam included, have the resources to keep up.

With this in mind, Ibexlabs leveraged a number of AWS Security Services to assure the fidelity and safekeeping of ITeam's sensitive data now and into the future. Services like AWS GuardDuty continuously monitor for malicious activity, Trojan Attacks, Port scanning and others. With the implementation of AWS Cloudwatch, AWS Security Hub and AWS Cloudtrail, ITeam had a centralized location to understand the security status of their entire infrastructure, evaluate threats in order of severity, and quickly respond with the most effective measures.

**“By centralizing every security and compliance consideration in a central place,” Adusumilli said, “ITeam could rest assured that they were keeping their PHI safe.”**

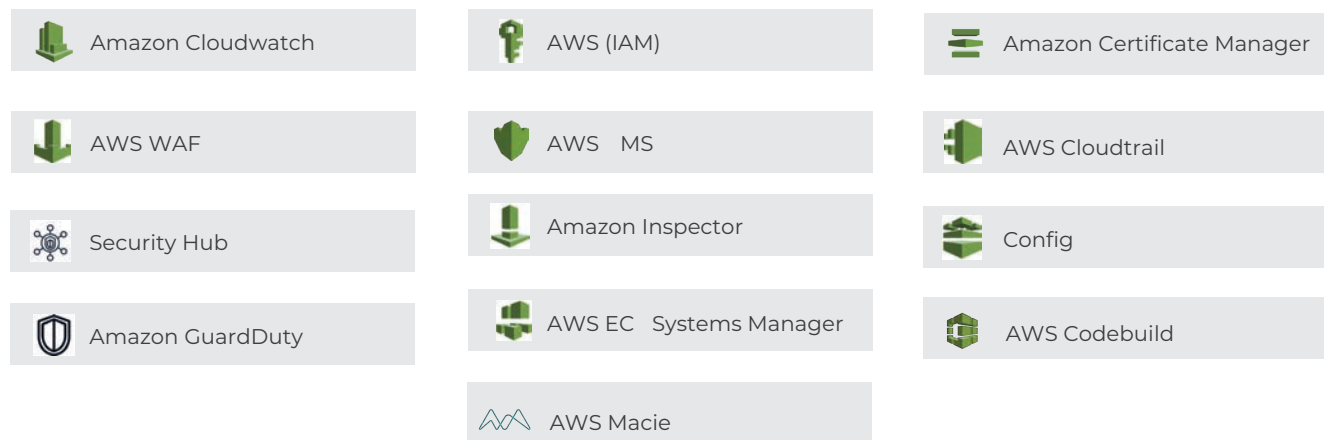
Ibexlabs also implemented WAF, a web application firewall that helps protect web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources.

## Devops:

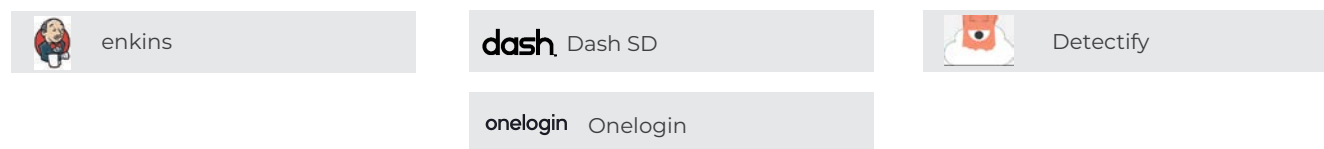
By implementing a process of Continuous Integration and Continuous Deployment, Ibexlabs helped ITeam deliver software faster, more efficiently and more securely. Through containerization, Ibexlabs packaged ITeam's hosted services with their individual dependencies, eliminating conflicts between services when it came time to roll out new patches and features. In addition, the inclusion of secure testing environments allows ITeam's engineers to see how these updates would perform before making them live.

These features greatly increased ITeam's ability to make changes quickly. This was essential for ITeam to continue its work in the medical field, where quick thinking and time efficiency are paramount. Furthermore, ITeam gained a clear view of the status of their security and resource management, along with where new challenges might arise, through AWS Config. Through this service, ITeam could thoroughly audit their entire infrastructure and think ahead about where DevOps work might need to be done.

## AWS Services Used



## Third-Party Services



## Results

The combination of these best-practice methods and AWS services allowed TTeam’s PHI privacy and security priorities to move in tandem. Moving forward, Ibexlabs’ innovative solution helps TTeam meet increasing HIPAA compliance demands proactively and cost-effectively based on the latest AWS technologies. With continuing weekly support and performance optimization from AWS Trusted Advisor, Ibexlabs is also able to address TTeam’s complex and evolving cost optimization, reliability, and scalability needs.

Furthermore, the ongoing support team from Ibexlabs manages TTeam’s hosting infrastructure in order to streamline their software processes in the management of policies, billing rating, and claims through high availability and fault-tolerant performance. This process yielded a solution from Ibexlabs that is in full alignment with TTeam’s business objectives.

## 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 needs.

Ibexlabs believes in open communication, quality service, and custom solutions to the technical challenges of our clients. On Clutch.co, all our clients have the opportunity to detail our business relationship and report on Ibexlabs's successes and shortcomings. As of May 2020, Ibexlabs is proud to boast an overall rating of 5/5.

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