

Pinshape: Migrating Critical Infrastructure to AWS

Creating a scalable startup infrastructure founded in DevOps principles

Migrating Critical Infrastructure to AWS



Pinshape

3D Printing

Customer Profile

Pinshape, a 3D printing startup, is building the largest and most respected community and marketplace for 3D printable models. The company is making it effortless for customers to explore, customize, and access physical 3D printed models.

Because designers upload their full 3D model files to the marketplace, Pinshape has high requirements for storage and scalability.

 www.pinshape.com

Challenges

Creating a Scalable Startup Infrastructure

As the company prepared for a major marketing effort, they realized their current server provider was not able to scale to the levels needed and decided to make a rapid migration to Amazon Web Services. With just two weeks to complete the project, the company needed to migrate their critical infrastructure to AWS.

In addition to the short time frame, Pinshape was struggling to find a resource with the right skill set. With little room for error, Pinshape needed a partner with solid AWS experience, deep knowledge of DevOps consulting methodologies and tools, and who could work quickly to meet their timeline.

Pinshape co-founder and CTO Andre Yanes explains that one of their biggest challenges in growing the business to date has included finding quality software developers in a competitive market place.

As a small business that just recently participated in the 500 Startups program, the company hasn't been ready to take on staff with deep domain knowledge in areas such as deployment and DevOps for CI (continuous integration), although this will soon be a priority.

In the meantime, one of the ways startups can minimize IT costs is through using consultants to supplement the internal team's knowledge.

"The right team can be a major factor in whether a company succeeds or not, and hiring has been a bit of problem," said Mr. Yanes. "It has been great to find help from outsourced experts providing DevOps for startups while we look to onboard skilled candidates as resources and growth allows."

Another common challenge for startups is determining their startup marketing strategy, identifying the right channels by which to reach the right customer segments. Yanes says once Pinshape has accomplished that milestone, their next big challenge will be maintaining a balance between development and infrastructure investment.

Flux7 Solution

Cloud Migration Services

After connecting with cloud consulting group Flux7, Pinshape rapidly determined the company's cloud migration services were the right fit. Flux7's AWS architecture experts and certified consultants, plus experience with DevOps approaches and Docker consulting, were a strong indicator the project would be a success.

After a quick IT assessment, Pinshape and Flux7 determined the key components needed to meet Pinshape's requirements were



Push-Button Deployment with
Auto-Scaling in AWS



Developer Environment for
Local Development



Continuous
Deployment of Code



"Having the right infrastructure in place takes away our concerns about providing a scalable, stable environment that lets us deliver the optimal customer experience," said Mr. Yanes. "By working with Flux7 to remove this worry, we can better focus on our other business challenges, including trying to market our application."



Pinshape solution specifics:

- Docker containers → DockerHub
- Devs pull containers from DockerHub using Vagrant
- Production pulls containers using Cloud Init (user data in AWS)
- New container is built and deployed on every code push

Common worry list

- DB backup
- Assets backup
- Uptime of Web
- Uptime of App
- Uptime of DB
- Uptime of static hosting
- Traffic spikes
- DoS attacks
- Security breaches

Benefits

The end solution, completed on-time and on-budget, is a more stable environment which gives Pinshape confidence that it can handle larger capacity requests and uploads. Web development for startups must be streamlined, easing the process of testing code changes and reducing maintenance of local development environments.

Using this newly optimized process and scalable infrastructure, Pinshape was able to launch its contest on time and now can be assured of an efficient infrastructure that meets current needs, maximizes the use of their existing developer resources, and can be easily adjusted for future growth.

SEE THIS LINK FOR MORE INFORMATION ON OUR IT
INFRASTRUCTURE AUDIT PACKAGES

<http://flux7.com/devops-assessment-package/>

Flux7 is a team of DevOps consultants and cloud migration experts helping businesses realize and optimize the benefits of technology by using DevOps processes and full stack experience. Our agile team delivers specialist development skills, architecture and operations knowledge to accelerate an IT team's progress toward achieving business agility using best practices in continuous delivery and continuous integration.

Contact us today for a needs assessment via info@flux7.com