Bleacher Report Innovates Faster at Scale with Docker

Fan Directed Sports News

Bleacher Report is one of the largest digital sports properties in the world because of its simple strategy to only create, curate and deliver content the is requested by the fans. This customer centric view of sports news now serves over 80 million users a month spanning the universe of sports from football, golf, Nascar, mixed martial arts, lacrosse and many more. Hundreds of editorial and video content pieces are published online and via the Team Stream™ mobile app each day to keep fans "in the know" and ahead of the games at all times.

By The Facts

80M
users

3x
more services

#2
sports site worldwide

10:1
Devs to Ops

Growing Beyond Start Up Scale at Start Up Speed

As users, page views and content started to grow, so grew tough challenges around scalability. The Breport application that powered the site was a monolithic Rails application comprised of legacy code. The team of one devops and three developers were finding it increasingly difficult to maintain and support the application and impossible to integrate newer technologies into their business. With innovation being key to keeping eyeballs engaged on the site, these application limitations were beginning to limit Bleacher Report's business potential.

The Transformation to Scalable Services

Nguyen and his team started the process of unraveling the monolithic Breport application into a services based application. They immediately started seeing the impact of having teams empowered to operate services independently but simultaneously noticed the negative impact of a growing operations burden. Having reached five services in 2013, the team again faced challenges as their operations team of one was becoming overloaded and a bottleneck to the transition.

The dream at Bleacher Report was to enable developers to build small services quickly and independently. This transition

> "When you're a start up, you just roll out code quickly because your focus is on being successful today. Now we are taking a services approach so we have the right platform to take us to the future."
>
> – Tung Nguyen
> Senior Director of Engineering

empowers developers to create but introduced more complexity for operations with a growing list of language stacks, configurations and their connections. As a result, engineers were forced to restrict language stack configurations to only those supported by operations – stopping that independence in its tracks.

Then the team went to a meetup to meet Docker, the leading platform to build, ship and run distributed applications anywhere. Nguyen and his team saw the potential right away and actively contributed to the community and ecosystem until the began their containerization project.

> "We are faster at scale which is what will keep the Bleacher Report as one of the top sports sites in the world. Docker empowers our developers with ownership, speed and consistency to build better apps for the site."
>
> – Tung Nguyen
> Senior Director of Engineering

Realizing the Dream with Docker

In the spring of 2014, the team began deploying Docker into their environment to build their internal PaaS. In just a couple of months they were actively using Docker with Elastic Beanstalk because of its easy learning curve, the flexibility enables and the speed brought to the development cycle. This allowed each engineer to quickly build the infrastructure they needed for their application without having to ask operations – without increasing the burden on their operations team.

While the engineering team has grown from three to 25 over the years, the operations team only went from one to three. Docker has made it easier for the operations team to support a greater number of developers and application scale. Since deploying Docker, the Breport app has grown from give to 15 services. Bleacher Report no longer needs to limit language stacks because Docker containers create a consistent unit for integrating code for deployment. Now engineering is empowered again to use the best language for that service and set of capabilities.

Summary of Benefits

- Speed: Spin up containers in under a second. Accelerate build process and push to production faster

- Consistency: Able to ship same container across different the environments from dev, to stage to production with the same tooling across all 30 engineers.

- Empowerment: Developers have more ownership and flexibility of the language stack used for software development.

- 3x Growth in Application Services: Grow to 15 services with plans to add more without impacting operational workflows. Enable a 10:1 developer to operations ratio.