

Turner

The world's second largest sports website handles 8x more traffic with Elixir

Bleacher Report, a division of Turner Sports, is the 2nd largest sports website in the world. It is the leading site for real-time sports coverage.

Bleacher Report delivers to 250M people who access 1.5B+ page-views per month, and serves 200k+ concurrent requests to their mobile app.

Erlang Solutions supported Bleacher Report's transition from Ruby to Elixir for some of their key applications. The results of this include:

- | **The system now handles 8x the previous average traffic load without autoscaling**
- | **The mobile app now supports 200M+ push notifications, at 10x the previous speed**
- | **Resource intensive features, previously requiring aggressive horizontal scaling, now run on about 1/10th of the servers with low CPU utilization**
- | **The 95th percentile latency hovers around 100ms and is not affected by traffic spikes**
- | **The speed of adding content to the system fell between 10x - 100x its previous rate**



"Erlang Solutions was able to come in with their expertise, help us establish best practices, and give us confidence that going forward our systems would be efficient and reliable".

The challenge of supporting real time content amid huge traffic bursts

Bleacher Report reaches over **250M** people a month and site activity can spike at any time.

Bleacher Report's mobile app, originally written with a Ruby back-end, presented technical challenges at scale. The development team was forced to use a complex caching strategy to serve the real-time content to the rapidly growing user base.

The in-app content was real-time and personalized, requiring heavy merging and sorting on demand, at odds with the complex caching strategy. A platform that could support traffic bursts and work at scale was essential.

Migrating from Ruby to Elixir for scalability, concurrency and reliability

Elixir's Erlang VM offered the scalability, concurrency and reliability needed to handle traffic spikes. Elixir's Ruby syntax reduced developer barrier to entry and the ability to get up to speed quickly.

Bleacher Report engaged Erlang Solutions to support their migration from Ruby to Elixir through:

- | **Regular Elixir code reviews**
- | **Education and mentoring on Elixir's best practices for an in-depth view of how the BEAM VM works**
- | **Clearing bottlenecks through a process of chunking the data**

Doing more with a quicker, simpler and more cost efficient code-base

Today, Bleacher Report's dev team are not as concerned about releases, even on the biggest nights of the year, such as the NFL Draft. Changes can be made with a few lines of code.

Due to the shift to Elixir, the dev teams now enjoy:

- | **Significantly reduced code complexity, build and deployment times, and thus significant cost savings**
- | **Time and resource freed up to address the technical debt**
- | **Excellent availability of coding expertise, because converting Rubyists into Elixir specialists is not straightforward**
- | **A different way of thinking about concurrency and parallelism that helped them simplify their code**



Erlang Solutions is a company in the Trifork group focusing on building trusted, fault-tolerant systems that can scale to billions of users. They are a talented team of software experts, passionate about Erlang & Elixir and with an unwavering belief in the open-source future.