

Oracle Dyn Case Study:

FASTLY

How to Build a Next-generation Content Delivery Network

San Francisco-based start-up, Fastly, is building the next generation of Content Delivery Network (CDN) technology and services. As the size of website content grows due to the inclusion of rich media (advanced Cascading Style Sheets, JavaScript, images, audio, and video), the need to get content physically closer to users has never been more important.

They are helping their customers do exactly that. With their unique hardware platform based upon Solid State Disk (SSD) technology to the company's innovative CDN caching software, Fastly is at the cutting edge of delivering bits and bytes to customers faster and more efficiently than ever before.

Fastly's CDN technology cuts through design barriers battled by traditional CDNs for years, resulting in better worldwide performance but with a smaller per-POP footprint—meaning that their focus on software engineering excellence also makes the company's services more eco-friendly than those of its competitors.

The company was founded by technologist and entrepreneur Arthur Bergman, former CTO of Wikia, a popular [Oracle] Dyn client that hosts over 400,000 unique wikis about various topics of interest. It was there that Bergman realized the challenges of using traditional CDN services to handle a highly dynamic set of websites—a property inherent to the content in a wiki.

It's this technology that gives Fastly their edge in the market: caching of dynamic content at the edge, but with instant global purging, a much-needed feature for today's web start-ups. According to director of engineering Simon Wistow, it was this experience at Wikia that made using Dyn for Fastly's managed/outsourced DNS a no-brainer decision.

Customer

fastly[®]

Challenge

- Mapping users to the closest possible caching machine
- Deploying a worldwide network of fast content caching servers

Solution

- Managed DNS
- Traffic Director

Results

- Able to route users to the best possible Fastly caching server
- Day-to-day operations run more smoothly

"[Dyn] are well known for their obsession over the operations of its global anycast network. Plus, when it comes to DNS, Dyn are the experts."

– **Simon Wistow**
Director of Engineering

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The Oracle Dyn Difference

Deploying a worldwide network of blazingly fast content caching servers is only half the challenge of running a CDN. The other half: mapping users to the closest possible caching machine, a challenge generally solved by taking advantage of the domain name system (DNS).

By utilizing the [Oracle] Dyn Traffic Director with geolocation load balancing, Fastly is able to hone in on a user's exact location and route them to the best possible Fastly caching server. In a similar fashion to Fastly's server code, Dyn's uniquely deployed global anycast network is in place to reduce every millisecond of latency possible from the United States to Europe to Asia to Australia.

"If a customer is in the United Kingdom, but the website is based in the United States (using Traffic Director) allows us to route that customer to the nearest cache server, which is probably in the UK or Netherlands, resulting in a quicker experience," Wistow said.

"While Fastly's engineering team could certainly build the software to operate a worldwide DNS service, the company ultimately decided to put this responsibility in Dyn's hands. They are well known for their obsession over the operations of its global anycast network. Plus, when it comes to DNS, Dyn are the experts," he continued.

Wistow explained how day-to-day operations run smoothly thanks to the rapid response of Dyn's easy to reach support team who are engineer-friendly and work hard to provide technical answers quickly.

Results

Having a reputation for speed has helped Fastly grow an impressive client roster that includes Wikia, Instructables and ImgIX. Moreover, the company's relationship to Dyn has helped spur their growth, too. Fastly was part of the Dyn experience at Velocity 2012 as a way to get to know both companies' customers and supporters and learn about what the market is looking for. That presence alone helped to get Fastly's name out in lights.

"When customers switch to us, they love us and never go back," Wistow said. "We need to continue educating customers about our competitive edge without preaching. Having an endorsement from Dyn helps. An introduction is all we need."

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