



Case Study

# Daily Racing Form (DRF)

Varnish Paywall

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Daily Racing Form, America's dominant horse racing media authority since 1894, required a faster, more scalable paywall solution and turned to Varnish.

## Background

Paywalls have not always been the most straightforward technologies to implement. Yet digital media outlets need a reliable way to ensure that their premium content is seen by the appropriate audiences or subscribers while ensuring that the user experience is not compromised in the process.

**The Daily Racing Form (DRF)** has a large subscriber/reader base and had used a third-party paywall solution to manage the content entitlement process, but when this solution proved not to meet their needs, DRF started looking elsewhere for a better solution.



## The challenge

DRF used a paywall solution that simply did not work as it should. It was comprised of custom modules built into Drupal and Apache, and it did not scale properly. Every single subscriber sign-in had to access the Drupal server, meaning that a lot of traffic was hitting the server, leading to possible overload, and that customers often faced delays and a poor user experience. These scaling issues, and a brittle cookie-based solution, led to a lot of customer complaints about the service being too slow, not working at all, being unable to login or access articles to which the customer was entitled, and so forth.

Scaling was by far the biggest issue. During big events, such as the Breeders Cup in horse racing, DRF would have to scale up additional servers to keep up with the load. Because subscribers had to hit the server and a PHP script was run each time (which was never cached anywhere), this slowed things down considerably, requiring greater server capacity. Meanwhile customer service faced a deluge of requests from subscribers unable to access what they wanted on the DRF site.

## DRF at a glance

### Company

Daily Racing Form LLC is a part of the Sports Information Group, an is a national, multi-platform media and e-commerce company providing premium data and authoritative editorial coverage to horse racing and sports enthusiasts in North America. Daily Racing Form is the only daily publication in the U.S. dedicated solely to the coverage of a single sport, publishing up to 2,000 unique pages of statistical and editorial copy every day, in as many as 20 daily editions.

### Challenge

DRF wanted to replace thier existing paywall solution with a scalable, high-performance metered paywall alternative.

### Varnish solutions for DRF

- Varnish Paywall implementation
- Caching and website acceleration
- Professional expertise/support from Varnish core developers

“When we researched Varnish, we could see that we could do a paywall in a different way from how we had been doing it – a better way.”

**Greg Wiley, Director  
Applications Architecture, Daily Racing Form**

## The solution

### **Scalability, stability and speed: Implementing a metered paywall with Varnish**

DRF looked at their options for implementing a new paywall solution, knowing that scalability was key. “When we researched Varnish, we could see that we could do a paywall in a different way from how we had been doing it – a better way. Ways to scale much better. We put together a business case internally to sell-in Varnish as the right choice, and got to work with Varnish to put the paywall solution to work.”  
– Greg Wiley, Director – Applications Architecture, Daily Racing Form

### **Implementation**

Once Varnish was selected as the chosen paywall provider, the implementation took only two weeks. DRF worked internally to ready their infrastructure for Varnish. Wiley stated: “I got prepared by reading the free O’Reilly book, *Getting Started with Varnish Cache*, which was a key piece of background that really spoke volumes about the subtleties of HTTP and how to do caching that I hadn’t picked up in all my years in working in tech.”

Based on this background, DRF made sure the endpoints in their entitlement API spoke HTTP the way Varnish wanted to speak HTTP and ensured this was ready before the hands-on work with the Varnish core engineer started. Once the Varnish engineer joined in and shared credentials and the groundwork on how to set up Varnish servers, the process was started and was completed after just under two weeks end to end. The new paywall was set up in the staging/test environment for a few days and then went live.

“Once we went live, all the customer support calls we were flooded with disappeared. We all thought, ‘Wow, this website works like a real website now!’.”

**Chris Mattia, former CTO, Daily Racing Form**



“Our experience working with Varnish was fantastic! I felt like I was clear on where we all stood throughout the process, and I cannot say enough positive words about it. Things are working so well now that I definitely sleep better at night.”

**Greg Wiley, Director**  
**Applications Architecture, Daily Racing Form**

## Results

The main goal of achieving scalability was immediately realized: the ops team noticed that the traffic to the VM that hosts the Drupal server has gone down significantly. It was constantly a worry before, and they had to monitor it constantly. This problem has gone away.

“One of the key business drivers in the industry - Triple Crown Season - was the real test to see just how valuable Varnish is and will be for DRF. With both the Kentucky Derby and Preakness happening, we expected a big audience. The operations team can't heap enough praise on how the servers are just humming along.”  
- Greg Wiley, Director - Applications Architecture, Daily Racing Form

Thanks to these changes, DRF will realize customer service savings (although not calculated) because the load on customer support has been almost entirely eliminated by implementing a scalable paywall that just works. DRF has received no calls about the site since implementing the Varnish paywall, and the feedback has been positive: people enjoy using it.

## “We don't have to sweat this: We're ready”

With major events, DRF had experienced some anxiety in the past about whether or not the servers would withstand the demand. Thus, when the Preakness Stakes event came, it was time to put Varnish to the test. But there was, in the end, nothing to worry about. Wiley notes, “We did a load test, and we experienced sub second page response times. We realized we don't have to sweat this. We're ready.”



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