

■ The Weather Channel Monitors Site Temperature with TraceView's Heatmap 24/7

Company Background

The Weather Channel has been forecasting since the 1980s. Since coming online, they've expanded to weather-related news, with the substantial online presence of weather.com. The Weather Channel's traffic can now surge to hundreds of millions of users per day.

The Challenge

For a company focused on the near and long-term future, The Weather Channel needed to update its dated infrastructure without sacrificing site performance. Running on a 10-year old framework and a monthly release cycle, there were scaling pains and visibility problems for internal teams. Each time extreme weather was predicted, the operations team spun up additional servers based on a categorical knowledge of how page traffic correlated to historical weather events.

In 2012, when Hurricane Sandy made landfall in New Jersey, the weather.com daily pageviews jumped to nearly 400 million - requiring 144 servers to handle the load. With a new architecture The Weather Channel was replacing their manual methods with automatic ones which meant that monitoring was essential to knowing if the whole system was working well.

As Jeannie Enlow, Director of Content Management Tools puts it: "a slow load time for weather.com is death." To ensure a good end user experience through their transition to the cloud, The Weather Channel needed to focus on monitoring to ensure that high traffic events were handled with automatic scaling, and needed monitoring that could handle a rapidly-changing cloud infrastructure.

The Solution

With their Reboot Project, The Weather Channel decided to host on Drupal and Acquia while using modern tools including TraceView to help them increase visibility into their system as the project neared release.

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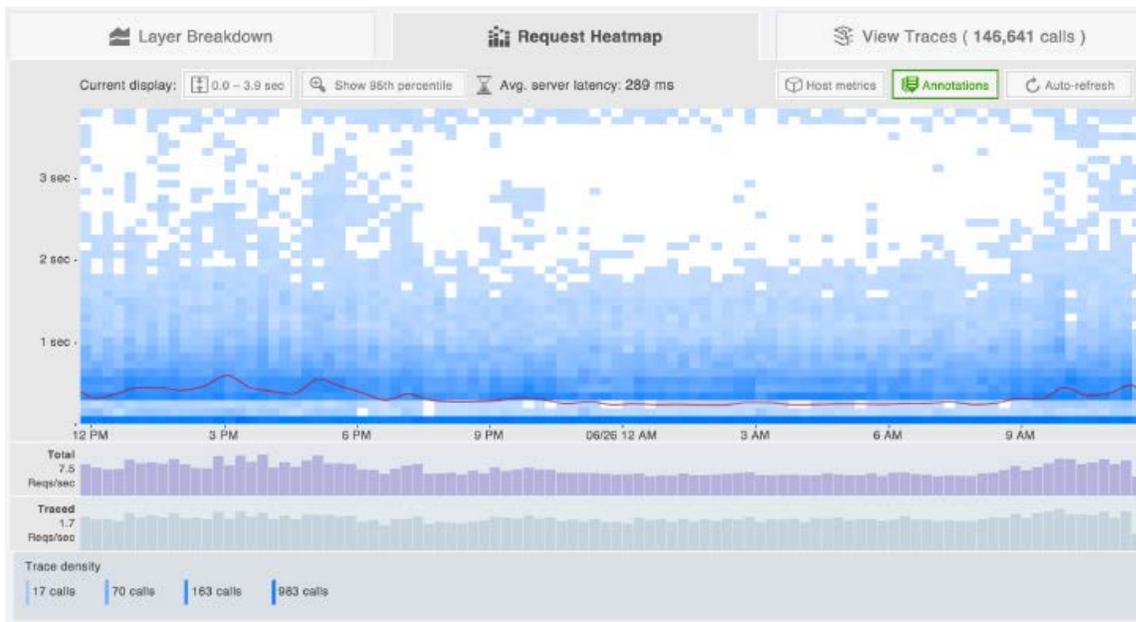
For weather.com, transitioning to a client-side architecture was obvious, distributing their hefty cache load to web clients instead of back-end servers. The team also used technology built to scale with a Drupal and Acquia backend spread over 18 servers behind an Angular.js and Varnish frontend. When the first January winter storm hit, weather.com traffic jumped from 40 to 80 million pageviews. Enlow's team was able to watch the site traffic double in real time on the TraceView Heatmap with no issues and no manual intervention.

“With TraceView, the one person can look at a latency spike, determine if it's a problem and react, all in the span of a few minutes.”

*Jeannie Enlow
Director of Content Management Tools*

The Result

The Weather Channel has successfully switched their architecture to a modern framework and the metrics of this success can be easily measured in TraceView. TraceView's Heatmap, like weather prediction, is all about seeing patterns and identifying unfavorable ones. To ensure that they aren't missing any end user experiences, Enlow's team has the TraceView Heatmap on-screen 24/7 looking for trends and slow requests. With hundreds or thousands of user requests the heatmap is an actionable source of information on real-time trends and outliers. If their site latency dips from milliseconds to seconds the team will drill down and determine if it's a problem. With TraceView the team can catch these trends before their users do.





With the new architecture TraceView continually proves value for The Weather Channel by illuminating real-time issues while also allowing the weather.com team to eliminate nagging issues like 404 errors for pages that were moved or lost when the new site pushed to production. Reports listing top URLs by frequency or load duration allow The Weather Channel to prioritize efforts for future performance improvements.

When Enlow's team sees latency spikes they can dive in immediately and within a few minutes determine what performance issue they're having or if it is a simple 404 error. With the new architecture weather.com hasn't needed to spin up virtual machines to handle their day-to-day pageload and has been humming on the 18 initial servers ever since.

With the new architecture, visibility was key, as challenges segmented into development and operations issues. "We have a performance improvement every sprint," says Enlow, whose team uses TraceView to identify slow resources to reduce page weight, optimize caching and prioritize lazy loading of assets. With their Reboot initiative, The Weather Channel upgraded their infrastructure, but with TraceView they've upgraded their monitoring.

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