TTS IMPACT

Supporting the EPA with AirNow.gov

The Environmental Protection Agency (EPA) partnered with GSA’s Federal Acquisition Service Technology Transformation Services (TTS) to support the AirNow.gov website during high-interest periods, such as fire season.

EPA’s mission is to protect human health and the environment. AirNow.gov is a public service providing access to information on air quality metrics and mapping data. During fire season, citizens rely on AirNow.gov to help decide the best times to exercise, areas to avoid, and environmental factors (such as smoke) that may make health conditions worse.

THE CHALLENGE

When wildfires break out across the country, people use AirNow.gov a lot. Traffic levels surge from nearly zero to one of the government’s higher-trafficked webpages. EPA required a platform that could operate efficiently during low-traffic periods and support the high capacities that peak wildfire periods require.

THE SOLUTION

AirNow.gov’s team reached out to cloud.gov for a new operating environment that could meet their variable traffic load. Using the cloud.gov platform services, EPA engineers were able to launch a new version of the AirNow.gov website. The new website took advantage of integrated services, including content delivery networks and resilient storage.
THE SOLUTION

As the 2020 wildfire season began to intensify, AirNow.gov usage increased from 2.7M to 22.3M requests in a single day. Traffic continued to surge, with a peak of 50M requests per day and 1,754 requests per second. During business hours, AirNow.gov pages ranked as the third most popular among all federal government websites.

EPA’s costs remained stable during fire season’s peak usage. Notably, the new AirNow.gov site, supported by cloud.gov, achieved 100% availability and showed critical air quality metrics to the public.

AirNow.gov’s Traffic Statistics (excludes subsites such as fire.airnow.gov)

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Number of Requests (Millions | Thousands | Not Scaled) Show Details

- Number of HTTP Requests: Total 376,146 Average 9,174,2927 Minimum 5,772 Maximum 23,663
- Number of HTTPS Requests: Total 593,501,436 Average 14,475,644,7805 Minimum 661,764 Maximum 45,609,613
- All Requests: Total 593,877,582 Average 14,484,619,0732 Minimum 5,772 Maximum 45,609,613
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We’re getting all sorts of load for AirNow with the wildfires and things are going really well. Everyone at EPA is really happy. This was the whole reason we pushed to cloud.gov. It’s working great.”

KEY SHIFTS

AirNow.gov has been one of the most visited sites in the federal government in the last month according to https://analytics.usa.gov/. There have been more than 5.3M views in the last seven days alone and over 19M views within the last 30 days.