

Practice Fusion's Industry-Leading Cloud-Based EHR Platform Scales On Demand and Performs Quickly with Akamai



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— John Hluboky, SVP of Technical Operations, Practice Fusion

The Situation

Founded in 2005, Practice Fusion is the largest cloud-based Electronic Health Records (EHR) company in the U.S. Its mission is to connect doctors, patients, and data to drive better health and save lives. Physicians and medical professionals use Practice Fusion's EHR system to manage their practice, from charting, e-prescribing, and lab ordering to appointment management, electronic faxing, and referrals. The system's lab, imaging, and billing modules integrate with a network of third-party pharmacies, laboratories, medical imaging centers, and medical billing services. With more than 600 connected partners, the platform helps coordinate care within the largest healthcare ecosystem in the U.S. Nearly 30,000 medical practices rely on Practice Fusion's platform, which facilitates over 5 million patient visits a month. Moreover, patients can access their personal health records, including prescriptions, diagnoses, and test results, and can search for a physician by location and specialty as well as request an appointment online.

The Challenge

Use of Practice Fusion's EHR platform quickly increases between 5-11 a.m. PST, when doctors and their staff use the platform for health applications including scheduling, charting, coordinating care, and more while patients also access it to manage their health records and appointments. Usage plateaus at 2 p.m. PST and long tails to 8 p.m. PST.

For Practice Fusion, it didn't make financial sense to build out data centers in a follow-the-sun approach to accommodate these Internet traffic patterns, as its Technical Operations team would constantly need to adjust for the peaks. Put plainly, approximately 75% of each day's health application infrastructure costs would be wasted on unused network and computing capacity. However, the company still needed the ability to support unexpected traffic surges.

At the same time, Practice Fusion needed to maintain its mobile performance. When the company first launched, most physicians and patients were happy to access the EHR platform from their desktop computers. But with the rise in popularity of mobile devices, Practice Fusion transitioned the backbone of its EHR from Flex to HTML5, making the EHR platform fully responsive to mobile devices. The company wanted to ensure the best possible user experience while containing costs, according to John Hluboky, SVP of Technical Operations for Practice Fusion.

The Goals

Practice Fusion needed to meet three key requirements to support its objectives:

- **Improve overall performance.** With some users in rural medical clinics, the company wanted to ensure that physicians and patients could quickly access the EHR platform regardless of their device or Internet connectivity
- **Optimize costs.** While continuing to rapidly grow its user base, Practice Fusion wanted to support expanded EHR platform utilization without incurring prohibitive health application infrastructure costs
- **Scale for traffic spikes.** The company wanted to handle traffic surges without augmenting its EHR platform infrastructure



COMPANY

Practice Fusion
San Francisco, California
www.practicefusion.com

INDUSTRY

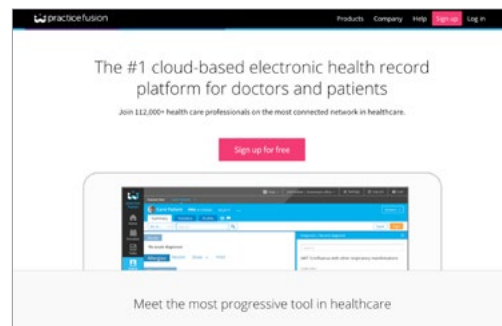
Healthcare & Life Sciences

SOLUTIONS

- Dynamic Site Accelerator – Secure Premiere

KEY IMPACTS

- Boosted EHR platform performance 30% on average
- Increased health application user and partner satisfaction
- Seamlessly handled 10x health platform traffic surge
- Eliminated need to plan for EHR infrastructure scalability and availability



Practice Fusion

Why Akamai

Industry Reputation Was Key

As Practice Fusion considered its options, it needed to account for its unique utilization model. In its view, investing in a usage model is the best way to optimize Practice Fusion's costs.

As an existing Akamai customer since 2012, Practice Fusion naturally considered how Akamai could help it achieve its goals. "Akamai had been quickly delivering our Flex application as part of a larger browser-based file download to end users," says Hluboky. According to Hluboky, Akamai came out on top because of its industry reputation and the team's previous experiences using Akamai's services both at Practice Fusion and at other companies. "In addition, it's hard to come across the level of expertise you find within Akamai, which represents some of the foremost minds in the industry."

Providing Fast Performance and Instant Scalability

With Akamai's [Dynamic Site Accelerator solution](#) in place, Practice Fusion has seen a 30% average boost in overall performance. That means physicians and patients can quickly access the platform and data from any location, using any device. "When we first launched the Akamai solution, we heard tremendous feedback from our user base about the performance improvement," says Hluboky.

At the same time, Practice Fusion has been able to seamlessly handle unexpected health application user traffic spikes. For instance, Practice Fusion was one of the first platforms to integrate ICD-10 codes and experienced a 10-fold increase in user traffic within two hours of releasing the new functionality. "There's no way we could have planned for that magnitude of volume – it would have been a guessing game. Fortunately, with Akamai in place, we have mitigated this risk," explains Hluboky.

Maintaining its Industry Leadership Position

Working with Akamai has reduced business barriers for Practice Fusion. As an example, Hluboky points to the ICD-10 scenario. Without Akamai in place at the time, Practice Fusion would have had to rate-limit access to ICD-10 functionality. "With Akamai, we gain the confidence to continue operating at our rapid pace but in a way that ensures overall availability of our platform and service," explains Hluboky.

When Practice Fusion launched its first offering in 2007, it pioneered cloud-based healthcare. Now, many other companies are nipping at its heels. "The level of performance and scalability that Akamai provides helps us retain our competitive edge. We've had a great experience with Akamai," concludes Hluboky.

About Practice Fusion

Practice Fusion is the #1 cloud-based Electronic Health Record (EHR) platform for doctors and patients in the U.S., with a mission of connecting doctors, patients, and data to drive better health and save lives. By facilitating over 5 million patient visits a month with more than 600 connected partners, Practice Fusion helps coordinate care within the largest healthcare ecosystem in the U.S. As the most widely used cloud-based ambulatory EHR, Practice Fusion is helping to reshape the future of healthcare. For more information please visit www.practicefusion.com



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