

**CHALLENGES:**

Application performance,
costs, data growth, reliability

IT ENVIROMENT:

NextGen EHR, SQL, HyperV,
99% virtualized, Hitachi & Fujitsu
blade servers, Dell Compellent
storage, Kaminario K2

SOLUTION:

2 Kaminario K2 systems
130TB total

BENEFITS:

Cost effective 1/2 ms
performance, increased
user satisfaction and
improved patient care

Superior Performance Enables Excellent Care

El Rio Community Health partners with Kaminario to accelerate outstanding patient care.

Executive Summary

The critical importance of electronic health records has placed technology at the center of the pursuit of health care excellence. For El Rio Community Health that means serving practitioners and patients with greatest reliability and the highest application performance possible. When they selected Kaminario to overcome severe latency issues with their mission critical Electronic Health Care Records (EHR) application, they achieved the performance they wanted, and improved satisfaction with patient care as well.

Company Overview

El Rio Community Health is an Arizona based non-profit health care organization providing medical and dental care to over 80,000 patients annually. Affirming their focus on positive patient outcomes, El Rio's IT team manages an extensive infrastructure and application set to maximize services reliability, performance, efficiency and patient satisfaction.

The Challenge

Patient satisfaction and quality care are top priorities for El Rio Community Health and its IT organization. Their comprehensive EHR application, "NextGen", serves 1800 users in four community health centers spread over 40 locations. Electronic records are an essential part of every patient interaction and all ongoing care. So, performance and reliability are crucial. But El Rio was struggling with system response times caused by big latency issues. Typical lag times ran from 7 to 20 milliseconds (ms), with spikes as high as 100. Users were complaining and patient care suffered. IT staff knew the performance problems, long query times and user dissatisfaction were centered on their Dell Compellent storage network. When no effective fix was offered it was time to look for alternative technology.



Examining Options

Selecting from Gartner's list of top flash storage vendors, the El Rio staff began examining their options. Of the ten companies contacted, some never responded and some were eliminated by poor fits in functionality, services or price. Under final consideration were SolidFire, Pure, EMC and Kaminario. Getting product details and quotes from each of these the El Rio staff carefully evaluated features, pricing, services and overall comfort levels with staff expertise and service levels.

One (Pure - or "not the one you would expect") was disqualified by high prices. One (EMC or "this one would surprise you as well") was dropped for lack of product expertise. And Kaminario was selected over the third contender (SolidFire) because of demonstrated support capabilities, product knowledge and overall comfort that K2 would resolve their performance problems for a fair price. And they were guaranteed that any issues would be resolved or the product could be returned.

"We measure our technology costs in the benefits to patient care. Better performing queries that shave a few seconds mean every visit is smoother, faster, less intrusive. Time saved adds up to more people being seen, more people getting quality health care"

Todd Portz, El Rio Technology Manger

IMMEDIATE BENEFITS

Performance issues with the critical El Rio electronic health care application have been totally eliminated.

Bonus Performance from K2 versatility that simultaneously adapts to different block sizes across disparate application workloads.

Satisfaction has greatly improved for system users and patients alike. Nobody complains about system speed anymore and the better technology is helping to provide better healthcare.

The Solution

The El Rio staff are constantly looking for ways to improve system performance. In this case they knew that their Storage Area Network governed application performance, causing the latency issues and the resulting user complaints. So, it was important that their transition to the new system be a smooth one. Kaminario provided knowledgeable resources to help with initial setup and fine tuning the system. The impact was swift and positive. "Any issues related to performance were immediately eliminated, 100%," said Portz. "And query times have accelerated across the entire network." Average latency dropped to ½ ms from previous averages that ranged from 7 to 20 ms and spiked as high as 100ms. "The SAN became the opposite of a bottleneck."

"All our Kaminario support has been superb."

Mark Wayman, Network Technician

After the system was installed, El Rio gained another speed increase. At the suggestion of their Kaminario field engineer, El Rio swapped their Microsoft software initiator for the Kaminario hardware initiator. Performance accelerated by 25%. And their K2 system proved itself again later when a controller failed. The remaining controller continued operating at sustained performance levels while repairs were made and the production applications continued running. There were no application impacts and users remained completely unaware that any problem had occurred.

Another performance advantage over their previous SAN system has been demonstrated by the K2 capabilities to simultaneously adapt to different block sizes across varying application workloads. The old system suffered slow-downs while processing block conversions when handling SQL together with file shares and documents generated for electronic health records. The K2 system optimizes performance on the fly without compromising on IOPS, latency, or bandwidth.



Contact

Contact a business development representative to answer any questions you may have.



Schedule a Demo

Schedule a demo with an engineer and learn if Kaminario's solution works for you.



Request a Quote

Request a quote for your application from our business development team.

About Kaminario

Kaminario, the leading all-flash storage company, is redefining the future of modern data centers. Its unique solution enables organizations to succeed in today's on-demand world and prepares them to seamlessly handle tomorrow's innovations. Only Kaminario K2 delivers the agility, scalability, performance and economics a data center requires to deal with today's cloud-first, dynamic world and provide real-time data access -- anywhere, anytime. Hundreds of customers rely on the Kaminario K2 all-flash array to power their mission critical applications and safeguard their digital ecosystem. Headquartered in Needham, MA, Kaminario works with an extensive network of resellers and distributors, globally.

For more information, visit www.kaminario.com

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