# Meaningful Metrics
## Speed for DevOps. Satisfaction for customers

**WHO:**

Ent is a full-service credit union serving eight counties in central Colorado

**CHALLENGES:**

Slow application response times

Storage at capacity

Complex and difficult storage management

Performance complaints

**IT ENVIRONMENT:**

Two data centers, one production, one DR/backup, Dell blade servers, Cisco networking, 10 Gig, 90% virtualized – VMware, Enterprise Banking Application, MS SQL, Office, Zerto backup

**SOLUTION:**

Kaminario K2, 100TB in each data center

**ADVANTAGES:**

- All-flash performance
- Smooth capacity growth
- Dedup & compression
- Responsive support
- Active-Active Architecture

## Executive Summary

As a full-service Federal Credit Union, Ent relies on their enterprise banking application to support a full range of back-office operations and customer services ranging from on-line banking to mortgage loans. Responsive performance is essential to customer satisfaction, and their spinning disk storage arrays were not meeting the need. After extensive research and rigorous proof-of-concept (POC) testing with three different vendors, Ent selected Kaminario K2 as their solution. The result is simplified management and .2ms performance.

## Ent Federal Credit Union Overview

Ent Federal Credit Union is a $5B financial institution headquartered in Colorado Springs. Ent provides a full range of financial solutions supported by 700 employees and 27 service centers across eight counties. Services include online, mobile and telephone banking as well as consumer and mortgage loans managed through their Colorado call center.

Ent is a not-for-profit, community-chartered credit union with membership open to businesses or individuals living or working in their service area as well as members of the Army and Air National Guard.

> "Part of my job is looking at what's next. Our spinning disk arrays were running out of space and application performance had become totally unacceptable. All-flash technology offered a solution, and our POC proved that Kaminario was the best choice."

Michael Rice,
Ent Credit Union,
Enterprise Architect

"Aside from technical considerations, vendor interactions and partner relationships are critical for us. Kaminario came in way above the others on that measure. They took the time to understand our business and address our needs."

Michael Rice,
Ent Credit Union,
Enterprise Architect

**IMMEDIATE  BENEFITS:**

- Non-disruptive scale-up, scale-out already proven with upgrades

- Latency at 0.2 ms

- 100,000 IOPS +

- Simple management

- Positive partnership

## The Challenge

Performance of the enterprise banking application at the core of all Ent Credit Union business had become unacceptable. Internal application developers were complaining about slow DB refresh, and customers were waiting five seconds and more for remote login. Beyond that, existing disk arrays were difficult to manage and nearly out of space. A new environment based on all-flash technology looked like a promising resolution, so they looked at leading vendors and began a three-way proof of concept (POC).

## Examining Options

Knowing in advance that all-flash storage was the most likely solution to their performance problems, Ent's team developed a set of key metrics. Improving performance was critical, especially for their SQL database, so the target was set as sub-millisecond latency and 100,000 IOPS. Experience with difficult storage capacity expansion made non-disruptive upgradability a priority. Additional prime capabilities included deduplication, compression, management simplicity and, of course, price.

Research at trade shows, a look at Gartner's magic quadrant and personal recommendations led the team to Pure, Nimble and Kaminario. Arrangements were made for simultaneous POC testing for all three. They ran benchmark tests and scripts to imitate production loads. They pulled disks, shut down power and simulated failover. And throughout the testing, they evaluated interactions with each vendor to anticipate qualities of communication and collaboration. "Kaminario support for the POC was great," Rice said, and they didn't try to oversell us or criticize the competitors."

> "All around, the experience has been great. We love Kaminario, the people, the technology, the support. We'll always recommend it. Customers for life!"

Michael Rice,
Ent Credit Union,
Enterprise Architect

## The Solution

There was no doubt that all-flash solutions would easily surpass a maxed-out spinning disk array. The purpose of the POC was to pick the best fit, and Kaminario excelled across their range of benchmark tests. One of the competitors quickly fell away. The other stayed close on some measures, but from compression and dedup to performance and scalability the K2 delivered the most comprehensive feature set. "It's easy to manage," Rice said, "the price is competitive, and the people are fair and honest." In the context of Ent's complete data center makeover, fast, reliable storage is a foundational element. With K2 in place, the development team is more efficient, and Ent customers are getting the benefit of outstanding performance.

## What's Next

Ent wanted a storage environment that could smoothly expand, and they've successfully tested that already with the purchase of new capacity. Next, the plan is to add another K2 array and begin installing a virtual desktop infrastructure (VDI) in all their branches.

### 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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