

CASE STUDY

IntelliFlash™ HD Series, the Backbone of Boulder County, Colorado



Challenges

Boulder County needed storage arrays that could handle the daily database and virtual machine demands of more than 2,500 employees and 300,000 constituents

Solution

Boulder County deployed Western Digital IntelliFlash HD series to consolidate its data center footprint and improve its performance and economics

Results

- Sub-millisecond latency leads to an improved experience for constituents and public officials
- 43% data reduction rate, allowing for data growth and expansion of file systems without extra costs
- 47% maintenance cost savings, allowing more strategic flexibility when it comes to building and maintaining infrastructure
- 92% decrease in RU size, shrinking data center footprint significantly allowing for more cost savings around heat and energy

Boulder County, Colorado is home to more than 300,000 residents and includes some of the most diverse, natural landscapes and sustainable developments in the country. From visionary open space, land use and sustainability policies, to forward-thinking and compassionate human services programs, Boulder County prides itself in helping foster a vibrant, healthy and active community.

The Challenge: Find a Storage Solution that Can Handle and Exceed the Needs of 300,000 Residents

For the IT team of Boulder County, every day is a heroic endeavor. The truth of the matter is that they don't just serve their 2,500 fellow employees – which is already a tough task – they also serve more than 300,000 county residents. It's a lot to handle, but the team always rises to the occasion.

"We operate under a simple philosophy: your government is only as good as its IT," said John Labone, senior systems administrator for Boulder County, Colorado. "A high quality of life depends on good local government, and IT is definitely an enabler of that."

A few years ago, the county's long-standing storage arrays from a competitor were starting to cause serious disruptions in the workplace, and consequently, for constituents themselves. "The arrays worked fine at first, but a couple of summers ago they started getting long in the tooth. Suddenly, we were hit all the time with rampant disk failures and overheating issues due to our setup not being able to handle our workloads," said Labone. "It's not my idea of a great time to drop everything and rebuild air exchange systems from scratch because our storage couldn't handle its primary functions."

Boulder County needed storage arrays that could handle their databases, virtual machines, file systems and Exchange Servers.

The Solution: Western Digital's IntelliFlash HD Series Arrays

Labone and his team knew that they needed to find a replacement. Given their experiences with their previous array, they wanted to proceed carefully and investigated many solutions available. "We conducted our search for more than a year and half. We really wanted to get things right for the county. We were looking for an array that could help us shrink our data center footprint and provide enough raw storage so that we don't have to buy storage every two or three years" said Labone. "We know there is a lot of fluff out there, and my team is allergic to marketing. We wanted to make sure we found the real deal, something that could handle our county's needs, and then some."

"We're running a killer data reduction rate of 43 percent, and on top of that, we've shrunken our data center footprint from 72RU to just 6RU. It's hard to beat that."

John Labone, Senior Systems Administrator for
Boulder County, Colorado

The Boulder County IT team looked into virtually every vendor imaginable. "Research was by far the biggest challenge for us. We fielded every phone call, talked to every salesperson, and consulted all of our industry colleagues," said Labone. "The Tegile [now Western Digital] team was the only team who came back with exactly what we were looking for: all-flash arrays that could meet our performance and capacity needs, and at a reasonable cost. It sounds simple, but you'd be surprised as to just how hard it is for vendors to deliver on this premise. Once we found the IntelliFlash product portfolio, things were extremely easy."

Western Digital IntelliFlash HD series arrays combine innovations in flash management, data persistence and data management to deliver unprecedented levels of performance, data consolidation, simplicity, and economics. With IntelliFlash HD series, Boulder County can consolidate virtually all of its workloads and data onto a single array to achieve the best balance of performance and economics at scale.

The Results: Sub-Millisecond Latency, 47% Cost Savings, and a Smaller Data Center Footprint

For Labone and his team, the IntelliFlash HD series has made a huge impact on their day-to-day operations. "We basically have what feels like zero latency now," said Labone. "We don't hear a peep from our users about lag times, storage issues, or anything else that falls under our purview, which is a good thing. In IT, no news is good news. Complaints are virtually non-existent now."

The speed of the IntelliFlash array is also making things easier on the backend for Boulder's team as well. "It used to take us 40 minutes to set up a single LUN. I timed it the other day – it takes just seven minutes now."

Since deploying the IntelliFlash HD series array, Boulder County has also seen impressive data reduction rates, and they have shrunken their physical footprint to boot. "With the array, everything is reduced, both physically and digitally," said Labone. "We're running a killer data reduction rate of 43 percent, and on top of that, we've shrunken our data center footprint from 72RU to just 6RU. It's hard to beat that."

The county has also been extremely pleased with the cost savings that IntelliFlash HD brings to the table. "We calculated it out, and we're saving 47 percent when compared to what we'd be paying for in terms of maintenance from the other vendors we were looking at," said Labone.

"Everything with Tegile [now Western Digital] has been a breeze. The sales process, the installation, and the maintenance. We're glad they have our backs, and we plan to purchase more IntelliFlash arrays in the future."

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