

Cloud Service Provider Gets 10x Performance, 4x Faster Provisioning and Revenue Upside



BLUE LAYER CASE STUDY



Service Provider, Cloud
www.bluelayerit.com

Challenge

Spiking latencies threatened customer satisfaction and business growth.

Results

- Nearly 10x increase in IOPS
- Latency down from as much as 1000ms to an average of 1-3ms
- 1.7x data reduction
- Zero storage management, 4x faster VM provisioning

“Now it’s more resilient and faster, so I can add more benefits to the conversation. Ultimately, that means more revenue for us, and greater performance for our clients.”

Michael Strong
COO

Company Challenge

For Service Providers, “Slow” is the New “Down”

Eighteen to twenty milliseconds, and at its worst, 200 to 1000 milliseconds. That’s the latency that service provider Blue Layer experienced with its previous storage solution – unacceptable response times, especially considering the firm runs several mission-critical applications for clients. Alongside the latency challenges, the company regularly hit IOPs limits. Again, VM performance was victimized.

In splitting workloads across three storage area networks (SANs), workloads bottlenecked on the node processing the largest capacity pool. “We could only go as fast as the slowest array node and that weak link was only hitting 1200-1500 IOPs. ‘Slow’ is the new ‘down,’” says Jeromy Mallory, CEO.

As a growing service provider, Blue Layer needed the capacity and performance to scale readily with clients. On top of all that, the company’s storage solution was nearing end of life. “We clearly had a performance dilemma, and that was the fork in the road for us,” says Michael Strong, COO. “And with all the replication we do, if we needed to spin up 15 VMs for a client quickly, we could do it, but it would have compounded the overall performance limitations.”

Results

With the Datrium’s Automatrix platform, Blue Layer gained the capacity it needed to grow, increased IOPS considerably and eased management – all in a more economical package. The company can add capacity for new VMs using commodity SSDs (solid state disks) for its servers, rather than premium-priced array-based SSDs. And always-on deduplication and compression shrinks the data footprint, improving infrastructure ROI.

10x Performance Creates Revenue Upside

For Blue Layer, it all sounded a little too good to be true. “Datrium said to us, ‘You’re going to be getting nearly 10x the IOPS,’ and I thought ‘yeah, right,’” Mallory says. “We tested it and kept testing it, including on the VM side, and we were pleasantly surprised to, in fact, get that kind of performance.”

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Likewise, latency dropped by many orders of magnitude, from as much as 1000ms to an average of 1-3ms – performance that Blue Layer never saw with its previous storage solution. Blue Layer replaced three storage arrays with a single Datrium DVX.

“Prior to Datrium, the conversation I had with prospects was about leveraging our world-class data center for business continuity and taking care of everything for them. But because of the governor on our speed, we could not always promise better performance,” Strong says. “Now, it’s more resilient and faster, so I can add more benefits to the conversation. Ultimately, that means more revenue for us, and greater performance for our clients.”

Service Provider Economics: 50 Pounds of Apples in a 40 Pound Sack

Prior to trying Datrium, Mallory questioned whether Blue Layer’s data would fit in the capacity provided. “I’ve got 50 pounds of apples to put into a 40-lb. sack,” he says. “No matter how many times they told me it would fit, I just wasn’t sure. But the data reduction performed beyond our expectations. We’re very happy about that.”

Blue Layer uses three 2TB solid state drives in all of their hosts. With a 1.7x data reduction ratio, the company’s 22 terabytes of production data consumes just 13 terabytes of capacity, leaving plenty of headroom in both host flash capacity and the Datrium DVX. The move to Datrium positioned Blue Layer with all the capacity it needs to handle current and future growth, and to add capacity as needed at commodity SSD prices.

Agility Gains with Zero Storage Management, 4x Faster VM Provisioning

Storage management also changed considerably. Blue Layer manages storage in vCenter, and no longer deals with LUNs or storage artifacts. When Mallory needs to create new VMs, he can do so in less time. “Spinning up new VMs is easily four times faster,” he says.

That means new clients are up faster and existing clients, after a restore or failover, can get back to business sooner. “The combination of a 10G network and Datrium means customers are back to business, and revenue, quicker after a recovery. The environment is no longer the bottleneck,” Mallory says.

The consultancy saves yet more time with attentive support from Datrium. With previous storage providers, Blue Layer rarely spoke with the same support rep twice. Not so with Datrium. “I’ve never had support like this before,” Mallory says. “With Datrium, usually one person sees my case through until it’s taken care of.”

About Blue Layer

Texas-based Blue Layer offers custom, comprehensive technology solutions for clients, providing managed services, outsourced IT, security, networking, and monitoring to diverse businesses, either hosted in its data center or on premise at client sites. Blue Layer additionally supports clients’ business continuity by offering disaster recovery as a service using its world-class data center.

Learn more about Datrium at www.datrium.com

