

PRATUM ACCELERATES CYBERSECURITY RESPONSE WITH ZADARA STORAGE

Pratum, Inc. helps organizations solve their information security challenges.

Pratum, Inc. is an information security services company providing a full suite of vCISO, managed SIEM, penetration testing, IT risk management, and compliance services to customers nationwide. Every security event faced by Pratum customers, from successful logins to attempted intrusions, is aggregated, analyzed in real-time, and stored in order to strengthen security insight and response.

Pratum has grown rapidly since its founding in 2008, today serving enterprises and small businesses in diverse industries including banking, government, and healthcare. This led to challenges in how the company managed its storage capacity, performance, and operations.

Pratum's managed SIEM service continually drives the need for bigger, faster storage solutions. Every monitored event generated by Pratum customers, from logins to attempted intrusions, is aggregated, analyzed in real-time, and stored to strengthen security insight and response.

"One differentiator of our managed SIEM service is that we retain an entire year's worth of data," explains Steve Healey, Chief Technology Officer, Pratum. "Most SIEM providers retain only 30 or 90 days of accessible information, then either delete or archive it.

With its customer base and data requirements expanding, Pratum sought a storage partner that would enable the company to continuously scale up its storage and the customer experience. "From the first phone call, Zadara set the bar very high," recalls Steve. "They've maintained that throughout our partnership and we so appreciate it."

BENEFITS OF ZADARA

- Fully managed solution, including 24/7 support and utility pricing
- High performance: 10GB/s bandwidth, ~5ms latency
- Visibly faster user experience
- Flexible capacity and engine scaling without capex
- Reduced management overhead: scaling and migration via support ticket, Docker automation

"Zadara was the provider that enabled us to maintain low latency and high bandwidth."

Steve Healey
Chief Technology Officer

THE CHALLENGE

The systems that underpin Pratum managed solutions need to ingest 60,000 real-time security events per second (EPS) and counting – EPS has quadrupled since the company started. At the same time, Pratum must deliver a fast user experience; data needs to be kept readily available.

Low latency was therefore a key objective for Pratum. “When somebody requests a security report or investigation, it’s got to be quick,” explains Steve. “We knew we were going to need around 10Gb/s of bandwidth. But more importantly, latency has to be 5ms or less. Ideally, we want microseconds, but that’s difficult when you’ve got multiple cloud storage vendors.”

The company’s scalability challenges were not just about how large capacity could grow but how seamlessly, in order to facilitate customer onboarding. “Historically, we purchased infrastructure up-front and managed it ourselves,” says Steve. “That took longer to provision and we needed a lot of notice if we were going to service a Fortune 500 or Fortune 100 customer.” Pratum therefore needed more flexibility and speed to provision new customers, including large enterprises, quickly.

Because Pratum was acquiring and managing storage infrastructure in-house, the company had a large management overhead. “We didn’t want our team to be spending time moving drives around and purchasing hardware anymore,” says Steve. “We needed to manage storage in a more efficient way.”

Having to purchase storage up-front also created utilization and cost-efficiency issues, because each storage upgrade required a large capital expenditure. “It was challenging when we brought on new customers,” recalls Steve. “We would have to buy storage ahead of time, and then we were sitting there with a whole bunch of capacity we weren’t utilizing. Profitability is reduced at that point.”

Before partnering with Zadara, Pratum had already started to address some of the challenges of self-managing storage by leveraging AWS cloud storage. “But we still had that issue of needing a storage partner that could help us reduce our management overhead and maintain performance with the size of data we needed,” explains Steve. “Not just now but in the next 2 years, 5 years, 10 years down the road.”

CARVING A NEW STORAGE ARCHITECTURE

Zadara helped the company meet these challenges by providing a storage architecture designed for scale and performance, in a managed cloud solution that has greatly reduced its management burden.

"With Zadara we've been able to carve our data out into individual volumes for each day," explains Steve. "Being able to break that data up into smaller volumes, where we could scale up capacity but also increase performance, was something we needed for the viability of our services. In essence it future-proofed our systems."

"From a management perspective, it provides much more granular visibility and increases our capability. We can easily move data to different speeds of storage, or we can see volume consumption on a daily, weekly, or monthly basis."

The solution provides utility-like billing that enables Pratum to scale storage flexibly without making a large capital investment. Capacity can be increased seamlessly as requirements grow, simply by submitting a support ticket. There is no need to dedicate costly resources to purchasing and managing new hardware.

Critically, the Zadara solution has delivered the single-digit latency Pratum workloads require, as part of an ecosystem that includes AWS public cloud storage.

"When we were assessing vendors, Zadara was the one with direct connects that would allow us to maintain that low latency, but have a high level of security and bandwidth," says Steve.

"Customers can see that level of performance change."

Steve Healey
Chief Technology Officer

THE BENEFITS

PUSHING PERFORMANCE LIMITS

The solution's high performance and low latency was achieved through continuous testing and optimization efforts in partnership with the Zadara team. "We've been able to run tests, scale the storage arrays, and ultimately better understand the impact storage tuning can have on the data within the environment, says Steve. "That gives us critical insight into where performance is being used most and allows us to increase it in those areas."

"That level of support and effort is one of the key reasons I think of Zadara as a partner. They don't just want us to succeed, they think about what needs to be done to give us that success."

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Chief Technology Officer

JUST THE TICKET

Having a managed storage solution has streamlined processes at Pratum. Where staff once tackled storage challenges in-house, instead of focusing on the core business, they can now submit a support ticket and receive guidance or even add capacity behind the scenes.

"It's so much easier to have our internal process be, 'if we need this volume expanded, submit a support ticket and allow Zadara to do it.' That's helped us expedite processes, but also reduced management requirement as well."

"Zadara's managed service allows us to offload tasks we used to perform in-house, such as volume expansions or data migrations, while still providing us with the capability to manage our systems ourselves when needed. That's helped us expedite internal processes while also reducing our management overhead."

VISIBLY BETTER EXPERIENCE

Optimizing performance and operations has led to a noticeably better customer experience. "Being able to scale seamlessly behind the scenes means we don't have issues migrating data anymore," explains Steve. "We can move data to faster drives to increase performance or migrate from a single VPSA to multiple."

"The result is reduced wait times for results to be returned and that's the most prominent to the customer. Our security analysts also get a faster experience. They can see that level of performance change."

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DOCKER-AUTOMATED MIGRATIONS

Partnering with Zadara has enabled Pratum to use Docker containers to automate tasks like migrating data to multiple volumes. Previously, these tasks were run manually in batches over 2-week periods and required a team member to manually monitor systems every day.

"Zadara wrote a script for us, which automated the process and manages things behind the scenes," says Steve. "The number of man hours that saved us, I don't know if I could quantify that, but it was significant."

A HUGE COMPLIANCE WIN

The Zadara solution also enables Pratum to replicate data across available cloud regions. This supports compliance needs, as data can reside in the correct region to meet regulations. It also provides disaster recovery options. "We're able to scale up in other environments in the event of a disaster," says Steve. "And there's no need to go to another physical location and configure that environment or manage a colocation site. That's a huge win for us."

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Steve Healey
Chief Technology Officer

WHAT'S NEXT

As Pratum develops its own next-generation services to drive continued growth, the company is looking forward to achieving its goal of microsecond response times for customers with Zadara's upcoming infrastructure-as-a-service offering, including storage and compute.

"It all comes back to performance," says Steve. "Looking at things like Elasticsearch, which allows you almost instant feedback, it's hard to do that with traditional cloud providers and low latency right now."

"Moving our compute and storage closer together, and closer to customers, is what will solve the latency issue. Knowing a little about what Zadara has planned for providing Edge solutions with compute resources on top of storage, I'm confident we'll get there together."

Thank you to Steve Healey, Chief Technology Officer, Pratum, Inc., for this interview.

To learn more about Pratum, please visit www.pratum.com.

²VPSSA: Virtual Private Storage Array; Zadara software-defined, enterprise Storage-as-a-Service

³Elasticsearch: An open source search and analytics engine

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