BluePearl Veterinary Partners ⋅ Industry: Veterinary medicine ⋅ Size: 7000 employees ⋅ Location: Tampa, Florida

**Challenges**
- Ensure high availability of the business-critical BluePearl practice management application
- Deliver consistent practice management application response times for BluePearl veterinarian and clinician users
- Cost-effectively scale practice management application servers in line with rapid business growth

**Solutions**
- Powering the BluePearl practice management application on Cisco HyperFlex™ All Flash with Intel® Optane™ Solid State Drive (SSD) cache provides:
  - Hyperconverged infrastructure with unified computing, storage, and networking
  - Low latency, high data throughput for application servers powered by the Intel® Xeon® scalable processor
  - Ability to scale compute independent of storage for resource efficiency

**Results**
- Delivers a seven-fold increase in practice management application response times for BluePearl clinicians and veterinary support staff
- Enhances overall customer and patient experiences at BluePearl by reducing administrative wait times throughout a visit
- Decreases performance-related calls to BluePearl’s IT service desk

BluePearl Veterinary Partners is a national network of specialty and emergency pet hospitals. As the company continues to expand at a rapid rate, it also maintains excellent performance and healthcare-grade systems availability to clinicians who rely on the latest procedures, equipment, and treatment to provide advanced medical care. For more information, visit bluepearlvet.com.

**For more information**
- Cisco HyperFlex Hyperconverged Infrastructure Platform
- Intel Optane SSD

© 2020 Cisco and/or its affiliates. All rights reserved.
Challenge: Scaling performance for the veterinary practice management application

As every pet owner knows, dealing with a sick pet is never easy. You’re already feeling anxious and the last thing you need is added frustration as veterinary clinicians wait to access a slow application.

For the BluePearl IT team, it means working behind the scenes to ensure the company’s mission-critical veterinary practice management application—which operates similar to an electronic medical or health record system (EMR/EHR)—is running smoothly so that patients aren’t kept waiting, and veterinarians and clinicians have more time to spend face-to-face with concerned pet owners and their pets.

To keep the practice management application available 24 hours a day, seven days a week across the company’s geographically dispersed network, the BluePearl IT team made the Cisco HyperFlex hyperconverged system their technology gold standard—growing their modern, virtualized environment to 33 Cisco HyperFlex nodes, 27 of which are located in their main data center.

Application performance productivity gains were evident from day one on Cisco HyperFlex, but the recent upgrade to a Cisco HyperFlex All Flash system with Intel Optane Solid State Drive (SSD) storage is making a night and day difference from the previous generation, says Derek DePasture, BluePearl IT Manager, Networking and Security. Intel Optane SSDs introduce a new class of storage that eliminates latency bottlenecks and improves performance in demanding applications.

“At the same time, when you extrapolate the time savings we’re achieving with this new Cisco HyperFlex with Intel Optane storage system, multiplied by the thousands of patients we see each day, it represents a significant operational savings for BluePearl and better patient care for our customers.”

Andrew Mahan
IT Manager, Systems Administrator, BluePearl
Reducing application response times by seven-fold

Starting with their larger, flagship markets, BluePearl is migrating all practice management application database and terminal servers to the new Cisco HyperFlex All Flash system with Intel Optane SSDs. Time savings are immediate for users who are not only experiencing rapid application response between screens—“as high as seven-times faster”—but most importantly, are now able to increase their time spent with patients and their owners, says Andrew Mahan, BluePearl IT Manager, Systems Administrator.

“The longer the blue wheel spins on a screen, the more it affects a clinician’s ability to move through the day and see as many patients as possible while trying to deliver the best quality of care,” says Mahan, explaining that the legacy practice management application used to be more “unpredictable,” meaning app users often waited up to 10 seconds or longer for screens to refresh.

On average, a veterinarian visit entails up to five or six interactions with the practice management application as clinicians perform check-in and weigh-in, record vitals and examination notes, administer tests, and eventually check a patient out. When up to 10 seconds are shaved from each step in a visit, the minutes quickly add up to significant time savings.

“Any extra time waiting when you’re standing there holding your sick pet can feel like forever,” adds Mahan, noting that being able to reduce the application response time enhances the customer experience. “At the same time, when you extrapolate the time savings we’re achieving with this new Cisco HyperFlex with Intel Optane storage system, multiplied by the thousands of patients we see each day, it represents a significant operational savings for BluePearl and better patient care for our customers.”

DePasture adds: “I don’t think you can put a value on what it means to have the backend systems in place to facilitate a positive, compassionate experience for pet owners. The anticipation is that we’re going to see bigger leaps in performance and even greater satisfaction from both our users and clients.”
Creating operational efficiency for a lean IT team

Philadelphia is one of BluePearl’s larger regional markets. Prior to moving the region’s practice management application database server to the new Cisco HyperFlex with Intel Optane SSDs, the IT team was receiving constant feedback from field leadership that the application was running too slow. After the move, “those complaints just stopped,” says DePasture. “We’re a lean team so not having to worry about those service tickets escalating is an immeasurable, direct advantage.”

Perhaps the best news for IT, says DePasture, is a notable reduction in service desk calls as a result of the improved response times of the practice management application, meaning the team has more time to focus on project development versus troubleshooting.

“A lot of the issues that we’ve faced in the past when growing environments have gone away,” says DePasture. “Agility has been key. It has allowed us to maneuver and pivot as the organization pivots, without the need to bring in outside contractors or postpone other projects.”

The inclusion of Intel Optane SSDs in the new cluster is providing additional IT benefits as BluePearl migrates newly acquired hospitals into their data center. The IT team can now run more virtual machines per node to increase workload density while boosting system performance, leading to even greater user satisfaction. At the same time, operational efficiency is increasing because compute is scaled independent of storage. Compute-only nodes save valuable rack space and reduce management overhead as new practice management application servers are provisioned.

IT gains agility to support new business offerings

As BluePearl continues to expand its network of specialty and emergency hospitals, IT has provisioned for continued growth over the next year. There are more employees accessing more systems, yielding a greater load on the company’s database, and meanwhile BluePearl practice management application performance is strong.

“We’re able to get better storage throughput and that means we can run denser workloads, freeing up rack space and simplifying our IT environment,” says Mahan, adding that new hospitals are migrated onto the virtual environment in as little as an hour.

Encouraged by the results they’ve seen so far with Cisco and Intel, BluePearl is launching a new business offering and plans to deploy a teleradiology-as-a-service application on two additional Cisco HyperFlex with Intel Optane SSD systems. Once completed, BluePearl veterinarians will be quickly and easily sharing more than eight terabytes of radiology images for remote diagnostic and ongoing study purposes.

“The ability to provide a trusted teleradiology service is going to deliver incredible benefits to veterinarians,” says DePasture, noting that the faster caching made possible by Cisco HyperFlex with Intel Optane SSDs is allowing IT to easily support such higher demand workloads. “We’re excited to see those improvements realized.”

Explore more Cisco Data Center Compute customer success stories at cs.co/dccstories.