Delivering near Real-time Fund Information to Investors

With word spreading throughout the investment industry of HedgeServ’s standout services—such as profit-and-loss (P&L) statements in near real time instead of next-day—the company has expanded organically along with its user base and also by taking market share away from competitors. That, in turn, drove a need for scalability—for a storage solution that could support business growth. Tired of having to constantly buy new arrays, HedgeServ researched alternatives. Everything HedgeServ learned pointed to SolidFire.

To support rapid business growth, HedgeServ implemented NetApp SolidFire, which delivered guaranteed performance and horizontal and linear scalability, enabling HedgeServ to innovate in the world of finance.

Quality assurance process cut from 18 hours ➤ 2 hours

Virtual machine deployment went from almost 1 hour ➤ minutes

HEDGESERV | PROBLEM SOLVED

SUCCESS STORY
Financial Services
HedgeServ accelerates our production and QA environments so we can develop and deliver high-quality applications faster—which is our advantage for staying profitable and competitive."

Isa Berisha
Director of Global Platform Engineering, HedgeServ

HedgeServ is a global, independent fund administrator with more than $300 billion of assets under administration across 10 offices. They provide uniquely client-centric service and one of the industry’s few real-time technology platforms, underpinned by SOC 1 certified controls.

“Our clients are investors. The faster they can understand what’s going on in the markets, the faster they can execute their trades and understand where they stand from a profit and loss perspective,” says Isa Berisha, HedgeServ Director of Global Platform Engineering. “The financial markets are all about information. Our ability to deliver information in near real-time enables them to make calculated decisions.”

Because the investment industry is global and operates across time zones, it is essential for HedgeServ to follow the sun with 24/7 high availability of its Software as a Service (SaaS) offerings. It does so using both “pet” and “cattle” applications, metaphorically speaking. The pet applications embody high levels of intellectual property, with complex algorithms built in; they were not originally designed to operate in cloud environments. The more recently built cattle applications are more cloud-ready.

“From a platform side, we had to figure out how we could continue to provide the availability of the pets that we have today and also provide a platform for the applications that have started to come online,” Berisha says.

“On the compute-side, how do you get enough compute capacity online fast enough, fluidly enough? On the platform side, how do you get operating systems, or make that compute capacity available to be consumed? How do you build fast enough on that platform to leverage it and get your return on investment? Those were challenges we set out to solve,” says Berisha.

“On the storage side, growth and performance have traditionally battled. At some point, you’re buying arrays much faster than you’d anticipated—with all the related cost and migration burdens,” he explains. “The most difficult challenge to overcome becomes storage.”
LEVERAGING OPENSTACK AND VMWARE INTEGRATION

HedgeServ’s answer is to leverage integration of both OpenStack and VMware platforms. Berisha assigned one of his senior staff members to this initiative, System Engineer TJ (Thomas) McAteer. The team was working on a project putting a significant Virtual Machine (VM) workload on OpenStack when they hit capacity on a storage array. SolidFire emerged as the solution to their challenges.

“One, we wanted to scale horizontally, scale linearly, so that if we needed more performance we could be performance-centric and if we needed more capacity we could be capacity-centric. And we could keep on scaling without much involvement,” Berisha says. “Number two, we needed the ability to add in increments. Number three, we wanted to eliminate the process of major migration projects every three and a half years for each array when hardware refreshes come up. API are a big deal too. We wanted to be able to automate our tasks—and SolidFire API were much more mature than others.”

“SolidFire’s direct integration with OpenStack and that community was absolutely compelling when it came to our purchasing decision,” McAteer adds. “In addition, SolidFire provides best practices on how to configure Windows, Linux, and ESX to meet our needs.”

**DEVELOPING SCALABILITY AUTOMATION API, QOS**

SolidFire provides a scale-out all-flash storage platform designed to deliver guaranteed performance to thousands of application workloads side-by-side, allowing consolidation under a single platform. The SolidFire system can be combined over a 10GB Ethernet network or 8/16GB Fibre Channel clients in clusters ranging from four to 100 nodes. It ensures performance with fine-grain Quality of Service (QoS), performance virtualization, and the ability to adjust resources on the fly.

HedgeServ runs both its test/dev and 95% of its production workloads on SolidFire. Where before it took 30 minutes to an hour to deploy a VM, with SolidFire, it takes less than a few minutes.

HedgeServ’s Quality Assurance (QA) process used to take 18 hours; now it’s down to less than two hours. “Developers get their results faster, so we can deploy software much more frequently, iterate faster,” Berisha says.

With the HedgeServ development community moving toward both continuous integration and Agile development, SolidFire brings scalability and higher performance to backend resources, including databases. Accelerating QA processes means they can be run more often, for faster and better releases.

“We’ve seen a massive explosion in the use of test/dev environments, more frequent QA runs and User Acceptance Testing (UAT), where we can take our application and replicate environments—dropping thousands of binaries and installing all at the same time,” says McAteer. “QA speed, sustained IOPS—these are the kinds of performance advantages we get through

_TJ (Thomas) McAteer_  
System Engineer, HedgeServ
SolidFire that have revolutionized that side of the industry.”

**DELIVERING A COMPETITIVE ADVANTAGE TO CLIENTS**

HedgeServ supports all investment strategies within hedge funds, funds of hedge funds, private equity funds, asset managers, managed accounts and managed account platforms, UCITS funds, and other institutional investment programs such as pensions and endowments. Clients leverage the company’s SaaS offerings for their own competitive advantage. In a world where speed is critical, HedgeServ provides secure, accurate, on-demand access to trade capture, daily account reconciliation, customized P&L reporting, independent Net Asset Value calculations, and other customized reports.

Some clients are even asking HedgeServ to develop new applications. “They wouldn’t partner with a company that would provide them with something next year,” Berisha says. “Leveraging SolidFire, we can set up a UAT environment, create and deploy mass amounts of VMs, test the applications and get them into production fast.”

**STORAGE BECOMES AN INNOVATION ENGINE**

Storage used to be a significant cost to organizations—purchasing storage, managing and maintaining it, and adding arrays every three to five years, Berisha says. SolidFire takes that headache out of the equation and significantly lowers Total Cost of Ownership. HedgeServ today is taking advantage of this to unleash its business and IT agility, and to create innovative new services.

Says Berisha, “SolidFire accelerates our production and QA environments so we can develop and deliver high-quality applications faster—which is our advantage for staying profitable and competitive.”

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NetApp SolidFire

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