

Pike13 Maximizes Application Uptime With Higher Efficiency on Amazon ECS

COMPANY DETAILS:

Cloud-based client management software for fitness facilities

CHALLENGES:

- Time and effort required to configure and maintain monitoring tools
- Lack of visibility into AWS applications, including container memory, CPU and network performance
- Time required to troubleshoot issues and lack of audit trails

SYSDIG BENEFITS:

- Automatically monitor all services across their entire infrastructure
- Receive immediate alerts in the event of anomalies
- Ramp new user productivity with easy onboarding and out-of-the-box dashboards

INFRASTRUCTURE:

Amazon Web Services (AWS)

ORCHESTRATION:

Elastic Container Service (ECS)



Key to customer growth and retention

Pike13, a tech company that delivers cloud-based client management software, gives gyms and yoga studios a simple interface to handle daily administrative tasks. The all-in-one platform enables fitness providers to manage staff and clients, including payroll, scheduling and communications. Pike13 is one of the highest-ranked softwares for class and membership-based businesses, and is trusted by companies around the world. The performance and availability of their software solutions is critical to revenue generation and customer retention. If an application goes down, gym, yoga studio and fitness owners and customers will notice. At a minimum, it could cause an annoyance. Worst case scenario, however, Pike13 businesses can't do business as usual and members miss their workout while owners can't process payments. To put it simply, the software has to work as expected.

Enabling transformation from monolithic applications to microservices

Pike13 originally developed its software application as a monolithic application, which the company has used since its launch in 2012. Developing, deploying and debugging applications built on the monolith is difficult and time-consuming. To accelerate software delivery, Pike13 chose to adopt microservices for some aspects of its platform.

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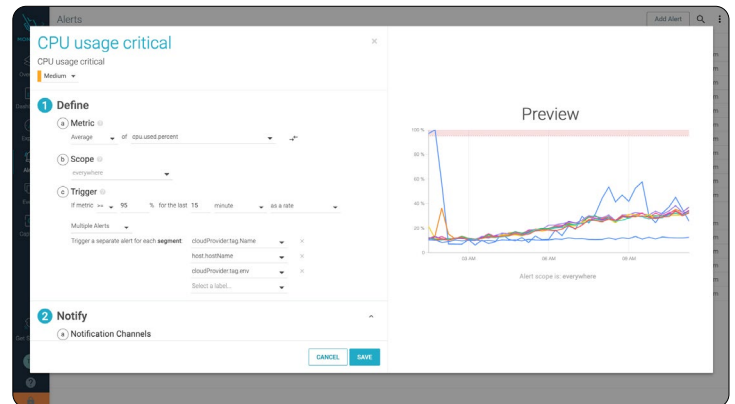
By moving some applications to Amazon Elastic Container Service (ECS), Pike13 gained new agility and speed.

Initially, the Pike13 team used default AWS graphs and AWS CloudWatch for the logging and monitoring of its container environment. With these tools, however, they do not automatically get the level of visibility that they need for aspects like container memory, CPU and network performance. Such visibility is essential for Pike13, a PCI compliant company.

Robust Customer Experience with Proactive Alerts

Since 2015, Sysdig has helped the Pike13 developer and DevOps teams understand the health of its Amazon ECS-based containerized applications and related services with little setup and maintenance. The DevOps team uses Sysdig to continually check the health of the environment, including anomalies that have cropped up so they can be addressed before they become an issue. When deploying software, Pike13 uses Sysdig to look at memory and CPU performance to quickly confirm that new deployments are working as expected.

“Sysdig is the tool we spend the least amount of time onboarding new developers on because people just get it.”



Pike13 also finds the Sysdig alerts helpful because it has been set up to proactively alert them of issues. Thyrus Gorges, a DevOps engineer at Pike13, explained how his team used Sysdig Monitor to help identify and resolve an unexpected database crash.

“We had an issue with our MongoDB database crashing, which once led to a customer-facing issue, so we set alerts in Sysdig to watch for the conditions that led to the problem,” Gorges said. “When the issue started happening again, we received notification from Sysdig so we knew it was coming. We were able to schedule some down time to get everything squared away and avoid a crash so our clients were not impacted. That would not have been the case had it not been for Sysdig alerting us in advance.”

In addition to the DevOps team, Pike13 developers also use Sysdig when deploying new applications to quickly understand if a newly deployed application is having any unexpected impact. As Gorges explained, “The 1-second granularity is really nice when we deploy something that needs more eyeballs. Our other service tools, such as APM software, will have us wait a while before we can see any data, several minutes in some cases. With Sysdig, I get the last 10 seconds as soon as I log in and we know immediately if something is going haywire.”

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Quicker Time to Productivity

One of the things Gorges likes best about Sysdig is that it's easy to set up and maintain. "With Sysdig, you install the agent and it's done," he said. "It just works."

"At the beginning, we used AWS CloudWatch and other AWS graphs, but we had to make our own dashboards and that required a lot more work just to monitor those tools. On the other hand, Sysdig automatically gave us dashboards out-of-the-box for Elasticsearch and all of the other databases we already had, like Redis and MongoDB. Since Sysdig hooks into our AWS account, we also get Amazon RDS and Postgres data. And all of that is just there, no work is required for us to see it. This is really nice because having to make your own dashboards is a lot of work. With Sysdig, it is just done for us."

"On top of that, the Sysdig dashboards showed us what we should look at. We were new to creating useful dashboards for our new container environment. Sysdig made getting started easy."

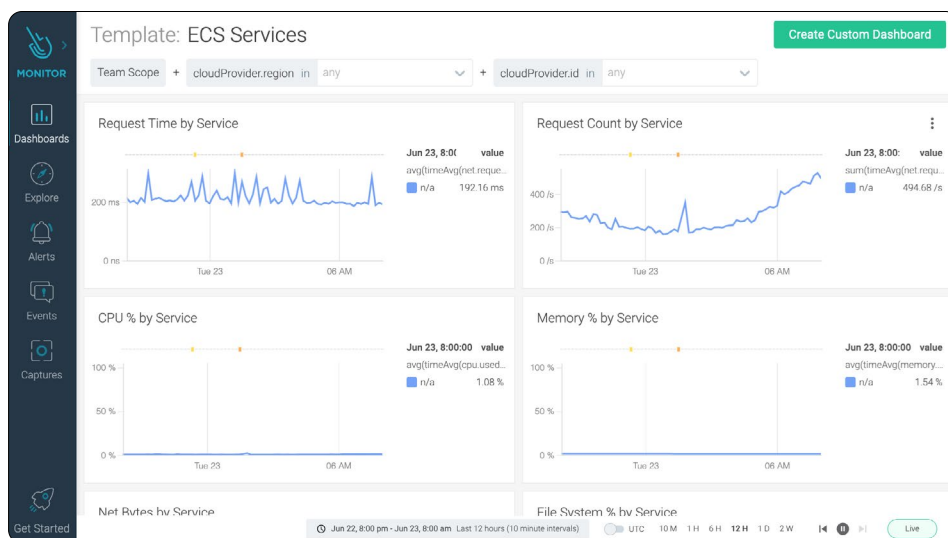
For Pike13, a growing company, ramping new developers on Sysdig is also easy.

"With Sysdig, you install the agent and it's done. It just works."

"The onboarding process for Sysdig is simple," Gorges added. "I have users log in and I give them a quick overview of how it works, and since 99 percent of people are familiar with how memory and CPU works, they get it. I show them the dashboards and we are done. Sysdig is the tool we spend the least amount of time onboarding new developers on because people just get it."

3X - 4X Faster Troubleshooting

Sysdig is able to provide Pike13 with a deep level of system granularity from its use of system calls, the primary mechanism of user-to-kernel activity. By tapping system calls, Sysdig gives Gorges and



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his team the ability to see every interaction that occurs at the kernel level, capturing and storing the information to provide an audit trail in the event troubleshooting is necessary.

“The Sysdig capture feature is amazing,” related Gorges. Facing an issue where background processes were taking 30 minutes to start, a process that normally only took a couple of minutes, Gorges was able to use the Sysdig capture tool to see the processes that were running and what changed in order to understand what was going on.

“System calls will tell you everything you need to know if there is a process issue,” he said. “If one is hanging, you can see the exact call that is stuck. It’s like the black box that gets opened up when you use system calls.”

Gorges was able to figure out the issue and address it immediately.

“Sysdig makes it easy for us to diagnose where a problem is. For example, if an instance is acting up, I can easily and quickly determine if it’s an operating-level issue or something else. I just go into Sysdig, click a dashboard, and right there it will tell me what is going on. I don’t have to search through graphs, find the right instance, and log into the instance to figure something out. It saves a large amount of time knowing where to go immediately, instead of having to do a lot of research to know where to even start and then once you find that, start the actual investigation.”

“Without Sysdig, we would have scattered visibility into our multiple databases. That would be atrocious for debugging issues. We have other tools that can give us some application-level data, but not the unified depth of data we need. And even if those

tools did give us that, they are not as easy to use as Sysdig. On top of that, Sysdig helps me to determine what is causing issues sooner. If I had to do my debugging manually with other tools, I would spend three to four more time debugging.”

Insights for Infrastructure Planning and Spend Optimization

With Sysdig, Pike13 is able to monitor its network traffic in order to understand usage and confidently make adjustments to its infrastructure. If the company sees a dip up or down in network traffic, they can anticipate their infrastructure scale. By understanding their infrastructure use, Pike13 is able to balance scale and efficiency to make adjustments to cloud resources for cost savings.

“We understand our sweet spot because of Sysdig and we’re able to make better-educated decisions that ultimately improve our bottom line,” Gorges said.

Sysdig is an integral part of the Pike13 microservices environment, saving the team time and helping the software company to continue to speed innovation and ensure customers get the software reliability that they expect.

Learn more at www.sysdig.com



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