

Amobee achieves major improvements in efficiency, flexibility and agility of their on-premises systems by using Platform9's Managed OpenStack solution

AMOBEE

Q&A With Eric Lakich from Amobee

Amobee, an advertising company in Redwood City, CA, started working with Platform9 to streamline their infrastructure with virtualization. Since then, Amobee's Systems Engineering team has seen major improvements in efficiency as well as the flexibility and agility of their on-premises systems. In this interview, the Director of Amobee's Systems Engineering team, Eric Lakich, talks about the transition and its impact on their infrastructure.

Tell us a little bit about your company and your role

We're an advertising company and most of the applications we deploy are things like ad servers, databases and backend advertising systems. We work with both advertisers and publishers. We do some real-time bidding for advertising and collaborate with partners in the ad industry for collecting advertising data. Everything is kind of machine-to-machine for our part. It's mostly back-end infrastructure.

The SysEng team's main purpose is to provide infrastructure support – servers, virtualized hardware, etc. - for different areas of the business. We work mostly with the developers to deploy applications into our production environment and then support the systems those applications run on.

What does Amobee's IT infrastructure look like?

We have a hybrid environment comprised of both cloud services and physical infrastructure in multiple data centers. We primarily deploy applications with one of three methods: virtualization, containerization or bare-metal. We use bare-metal for software technologies with high machine utilization and heavy resource requirements of compute, memory and network.

What led you to
OpenStack & Platform9?

We really like the flexibility that cloud platforms give us as far as being able to spin up and down resources and move things around. It's really agile and flexible and we wanted to be able to get that same agile process on our own hardware, while maximizing efficiency. We have a lot of places where we might have a really powerful server running a small application. There was a lot of over-provisioning. We are using Platform9's offerings to break those servers into smaller parts and use VMs to run those smaller applications more efficiently. Right now, it's only a small component of what we use, but I think it will grow as we move more things into the virtualized environment.



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What was your setup experience like with Platform9?

The actual work to move the applications was mostly spent in planning, because it was the first time we had done this. We had moved OpenStack around a little bit in our infrastructure and were looking for applications that were a good fit – horizontally scaled, not a lot of hardware-sticky requirements like persistent storage, etc. Once we identified those applications, the actual migrations were completed within a week, so it was fairly quick.

In the beginning, there were some prerequisites we had to get set up on our systems, and Platform9 was really helpful getting things up and running . Once we were up and running, the effort was pretty minimal. We didn't have to put a lot of time and focus into setting up the clusters, so we were able to shift immediately into using it. It was an overall good experience.

Have there been any issues?

There were a few minor glitches early on in the UI, but you guys were responsive and helpful and got the issues resolved. When we need things done they are usually done quickly, within a day or two.

What were your goals for virtualization?

Our biggest driver for hardware consolidation was to reduce cost and to better utilize the hardware we already have available. This initiative allowed us to use currently available resources rather than buy additional hardware and/or data center space. And it has paid off! In one specific case, we were able to reduce a data center footprint of 5 physical racks containing more than 100 systems into a single physical rack using only 35 systems. Due to the application requirements, that effort would not have been feasible without a virtualization strategy.

Why did you choose to work with a service provider like Platform9, rather than setting up OpenStack on your own?

One of the major reasons we decided to use a service provider was because it takes a lot of time and effort to set up an OpenStack cluster. There are a lot of moving parts and learning curves. We had to ask what type of resource cycles we would need to dedicate to provisioning it, maintaining it, etc. if we did it all in-house. We always seem to have more projects than we have people to complete them, so we have to choose where we focus our attention.

In some cases, like with OpenStack, since there are resources like Platform9 available, it doesn't make as much sense for us to reinvent the wheel and dedicate the time and resources to learning how to run a platform properly and spin the platform up and maintain it on an ongoing basis.

That's something we can entrust to Platform9, and then we can focus on how we move more applications over to it and getting other things done in the infrastructure.



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Do you have an OpenStack expert on your team?

We all have a basic knowledge of how it works, mainly because we did go down the road of evaluating the scope of setting up and maintaining a cluster ourselves. So we did gain some knowledge from that but I wouldn't say we have an OpenStack expert on our team. Well, we do have an expert - it's Platform9!

What differentiated Platform9 from other service providers?

The biggest thing we were looking at was how easy it is to get a cluster up, how quickly we can do it, and how responsive the support is. We evaluated the services of several providers, looking at everything from licensing structures to how power and resources grow over time. The UI was also a pretty good selling point. I think Platform9's was by far the simplest to understand and gave us the information we needed. And in the end, you had the most competitive cost structure as well as everything else we needed, so that pushed us over.

Has virtualization resulted in any major shifts for your team or company?

For a company that wasn't using any type of virtualization before, working with Platform9 would be a major shift because it would be a much more agile environment than they were used to. In our specific case, we were already running a VM environment in AWS, so this was kind of a complement to that. We already knew what we could do, but we wanted that same luxury on our own hardware. It did achieve our goals from that perspective.

On the efficiency side, at the time, we had bare-metal provisioning which created a lot of inefficiency, so we were able to take a lot of smaller applications that were running on many servers and spin them down to only a few servers. This was great from a power consumption and cost of space standpoint, and it was a way to downsize our infrastructure without losing any of our application coverage or the number of nodes we can run in the infrastructure.



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Any lessons learned to date? Is there anything you would do differently?

Not really. Platform9 honestly actually made it a pretty boring experience to get everything set up – always a good thing in systems engineering. We don't see a lot of the moving parts of the OpenStack cluster because it's all contained and managed by Platform9. The easy part, breaking up the hypervisors and launching virtual nodes, that's all pretty uneventful, so there really weren't any "ah-hah" moments.

Thank you, Eric, and congratulations on your success!

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