A 15% gross margin increase, significant boost in performance and reduced customer churn for CloudSigma after deploying StorPool Distributed Storage

CloudSigma's Challenges

CloudSigma used to run three storage solutions in parallel: an internally developed solution, based on ZFS, an all-flash array and several scale-out magnetic deployments with a commercial vendor. For the most part they were using the internal product which they developed out of frustration with the other vendors they were working with. These vendors over promised on performance, their solutions were too expensive, and their teams were not providing adequate operational support.

CloudSigma's operations and development teams were taking on storage related problems as well as dealing with their main cloud service.
When they adopted StorPool they made a strategic decision not to invest their resources internally on both day-to-day management and the development of the storage layer. Storage is a very big area to be keeping up with, CloudSigma wanted to focus on their core business.

"We needed to focus on the one thing we feel we can add the best value to and that definitely didn't include storage in our case."

"Storage is critical to the cloud, it is the biggest challenge. For a service provider it is very difficult to get a good storage system that's able to deal with the demands of all different customers in parallel. It has very different requirements compared to a traditional storage system."

Robert Jenkins, CEO, CloudSigma

Deployment Flexibility

CloudSigma has 7 locations around the world and a number of new locations in the pipeline, which makes its case more complex. The company was looking for flexibility in the deployment model allowing them to tailor the storage solution to the specific requirements of every location. StorPool allowed CloudSigma to tailor the storage to the specific facility parameters and customer requirements of every location and thus to stay with the same storage vendor globally and operate in an optimized way across many locations.

StorPool's storage solution integrated seamlessly with the networking and computing pieces. For instance, in Zurich, the largest cloud of CloudSigma, StorPool was deployed in a semi-converged setup which combines converged all-SSD nodes (running both applications and storage) with separate storage-only HDD nodes. In other locations where the power density is lower the optimal setup is different and in that case they use a fully converged setup. For a cloud provider, the storage is a system which cannot be taken down, even for maintenance, because it's impossible to coordinate thousands of customers regarding downtime.

Setups

StorPool is deployed in all six operating CloudSigma locations and is being rolled-out in more locations under development worldwide. The typical setup starts with a minimum of three standard servers, a mixture of SSD and spinning-disk drives and a redundant 10 Gbit network. In most cases the architecture is hyper-converged or where datacenter parameters allow it - semi-converged. CloudSigma uses the KVM hypervisor and a proprietary cloud management system, with StorPool being integrated through a JSON API allowing CloudSigma to control their storage, alongside all other systems from a single pane. The current number of storage servers in production is 50+, servicing hundreds of hypervisors. The aggregate data under management is over 1 PB.

"One of the attractions of StorPool was that it is a very technology-focused company and has highly talented individuals. We are confident, not only that the product was the right product because of the design and the architectural aspects but also that the team behind it was very engaged and had the skills and ability to support a service provider."

Results

The CEO of CloudSigma sums up the results best:
"By using StorPool we achieved over a 15% increase in our gross margin and that is huge for a service provider. To be able to increase our gross margin by adopting a new storage system and at the same time increase performance significantly, that's really a major change. From a commercial perspective after adopting StorPool we've been able to achieve a much more efficient fabric that's allowing us to sell more services on the same hardware."

"So we increased our gross margin, we've increased performance, we've reduced customer churn. We are very happy and finally we can say – the liaison we have had with StorPool has been excellent. We've been very happy with the reactions of the operational team both in terms of managing the solution and expanding it but also in terms of dealing with issues and working together. We found StorPool to be a great partner in terms of our service delivery."