Prioritizing big data agility and scalability

Running Tapjoy's mobile ad platform on Cisco Metapod™ boosts algorithm performance and real-time content delivery.

Executive Summary

- **Customer Name:** Tapjoy
- **Industry:** Mobile advertising platform
- **Location:** San Francisco, California
- **Mobile Users/Month:** 519 million

Business Challenge

- Needed an environment to accelerate development and improve performance of big data algorithms

Solution

- Accelerates product development with private cloud

Business Results

- Savings up to five times greater than old deployments

Business Challenge

With a global monthly reach consisting of more than 500 million mobile users and billions of requests, Tapjoy historically relied heavily on their IT footprint. They needed an environment that would allow them to accelerate the development and improve the performance of their big data algorithms, which help drive real time decision-making that delivers the best content to their global audience. Tapjoy engineers opted for a cloud-based model to run their big data platform instead of bare metal, prioritizing agility and the ability to scale over bare metal performance.

Initially they deployed at AWS, but as the platform grew and their AWS costs increased, Tapjoy began to look for ways to better manage their growing public-cloud spend while increasing efficiency. They needed to do this without compromising the cloud experience they were giving their developers.

Solution

Wes Jossey, DevOps Manager, and the Tapjoy team decided that a hybrid approach would best suit their needs and give them the predictable performance they were seeking, so they began looking into private cloud technologies. "I heard about OpenStack a few years ago and kept up with it on tech news as it grew," Jossey said. "OpenStack fit very well with the way we used AWS. The things we needed to be there were there, and they worked the way we expected them to work. So we started to look for someone to partner with and began the evaluation process. Our big thing was that we wanted someone we could continue working with after the deployment happened. We didn't want someone who was

Product List

Cloud and Systems Management
· Cisco Metapod™

going to set up OpenStack and hand it off. We're comfortable in cloud, but we realized that we would need to hire four or five engineers just to operate and manage it. Those engineers are impossible to find and we didn't have the time or resources to be able to do it quickly."

When it came to making a decision, Jossey and Sean Lindsay, VP of Engineering, looked at many different OpenStack providers. "We met with Cisco in San Francisco, and were really impressed with the team. I think we all left that room feeling like this wasn't a typical vendor meeting. We felt like we weren't the smartest people in the room and Cisco was really going to take care of us." Ultimately, Cisco Metapod™ was the mix of technology and operational expertise Tapjoy was looking for.

Business Results

Tapjoy continues to maintain its competitive edge by listening to their customers and using technology to accelerate product development. Their initial Cisco deployment consists of hundreds of servers running their big data processing workload. When asked about the migration process and embedded tools, Jossey says it isn't as difficult as one might think. "We have great middleware and everything is abstracted. The way we use AWS and OpenStack is the same—it's just raw compute. We do care about things like security groups, user management, and spinning instances up or down. Everything works as expected in Cisco Metapod™ relative to AWS."

With the migration of Tapjoy's data platform now complete, Jossey's team continues to balance the needs of the business and costs as they migrate additional workloads to Cisco Metapod™. "If we factor in labor, power, long term contracts, and a three-year depreciation on our gear, we expect somewhere around 3x–5x savings over our old deployments. There are tradeoffs to be had which can drive those savings up, or down, but we consistently chose to not fully optimize for cost in every situation, and rather optimize for redundancy, flexibility, and predictability. I have a feeling we could have driven our multiples higher (9x isn't an unheard of figure), but the effort and timeline to accomplish that figure was outside of what we were looking to do."

Jossey is optimistic about the future of Cisco and OpenStack. "The great advantage of OpenStack, and open source in general, is the momentum gained as more people adopt the technology. I can't wait to see where Cisco and the community take us."

For More Information

To find out more about the Cisco Metapod™, visit: www.cisco.com/go/openstackprivatecloud.