Exploring OpenStack cloud case studies

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During the course of the last twelve months, the OpenStack community has advanced as more users of the leading open source cloud technology have been reporting their progress—with the help of their partners—towards making a meaningful impact on their business goals and objectives.

We've also learned how these progressive technology users are pioneering changes in their own organizations—enabling them to become more competitive in the global networked economy.

The OpenStack Summit 2014 opened with a keynote on the first day of the conference featuring lessons learned from industry leading organizations that have already deployed these open cloud technologies. Each case study had multiple instances of OpenStack that have been applied for a variety of commercial application scenarios.

Jonathan Bryce, the Executive Director of the Foundation, introduced the growing community of OpenStack Superusers (http://superuser.openstack.org/). Glenn Ferguson, Head of Private of Cloud Enablement at Wells Fargo Bank, and Chris Launey, Director of Cloud Services & Architecture at the Walt Disney Company, described their IT environment and how they've adopted OpenStack as a solution to their company's varied cloud infrastructure requirements.

Addressing the needs of enterprise workloads is only part of the evolving adoption story told at this year's Summit. Several broadband service providers are also early adopters of OpenStack.

How network operators apply OpenStack platforms

During a lunch session on the same day, Fernando "Fred" Oliveira, cloud architect at Verizon, described his experience building OpenStack clouds. He explained how the company's network is growing faster than they can monetize the infrastructure, and so they're looking at open source technology as a way to proactively control costs—but their motivation goes beyond bottom-line savings.

Verizon will use OpenStack as a key enabler of its go-to-market business strategy—essentially compressing the time it typically takes them to reach significant new service revenue attainment.

Moreover, Verizon looked to this rapidly evolving software technology as a way to become more agile—from the initial service launch to the ongoing operational requirements. They have been a pioneer of Network Functions Virtualization (http://superuser.openstack.org/articles/summit-session-verizon-s-nfv-strategy-lab-specs) (NFV), and OpenStack became a natural choice to use within their numerous proof-of-concept tests and ongoing pilot projects over the last year.

Exploring the full potential of NFV applications

On the second day of the OpenStack Summit Toby Ford, Assistant VP, IT Operations Strategic Realization at AT&T, described his personal experience with cloud offerings—both internally and externally focused. He started his talk by disclosing that when he first arrived at AT&T (as part of an acquisition) "open source was pretty much forbidden." Today, it's an integral part of their IT strategy.

The commitment to explore NFV is an example of their evolving strategy in action—and the company's contribution to the OpenStack community. In fact, Ford said that the adoption of OpenStack has become a somewhat unique proxy to introduce more innovation into their DevOps process. Moreover, he sees a tremendous value in the ecosystem that has formed around this open source cloud technology.

AT&T first introduced OpenStack in their lab environment during 2010. Moving quickly, they had already progressed to production workloads by the end of 2011. Today, they have approximately 120 applications deployed on OpenStack. The platform has been deployed in seven data centers. At the end of 2014, it's anticipated that three more data centers will join those in production.

The virtualization use cases (http://www.redhat.com/resourcelibrary/use-cases/Red-Hat-Enterprise-Virtualization-VMware-Migration) have expanded from the more typical back-end applications to now include new things—such as Big Data usage scenarios. Over the next two years, AT&T plans to expand their deployment from 10 to 20 data center sites. Why so many locations? Ford says it's all being driven by the promise of NFV—particularly within the mobility systems arena.

Why open source is now pervasive

Keeping in mind that AT&T is experiencing aggressive new competition from outside of their traditional realm, Ford acknowledged that the company's executive leadership knows that they must change—and OpenStack is seen as a catalyst to rapidly advance a flexible and agile DevOps environment.