Sony Pictures Technologies Develops DevOps Solution with Stelligent to Create Always-Releasable Software

The Challenge

In developing the next generation of an important software system to manage entertainment assets, the Digital Media Group (DMG; a unit within Sony Pictures Technologies, Inc.) was challenged with the "last mile" of the software delivery lifecycle. The "last mile" is the process of delivering the software system to users after software development is "complete." In many companies, this last mile is often burdened by manual processes and other constraints that prevent regular delivery of software to users. On previous generations of this system, it took months after development was complete before the software was delivered to users.

In seeking increased agility for its customers, DMG sought a way to click one button to deliver new features and changes - along with infrastructure updates - to users while reducing infrastructure and delivery costs.

The Solution

Working with Stelligent, DMG created a full-featured, automated Cloud Delivery system running on Amazon Web Services' (AWS) infrastructure. The AWS components include the following:

- [AWS CloudFormation](#) for managing related AWS resources, provisioning them in an orderly and predictable fashion
- [AWS OpsWorks](#) for managing application stacks
- [Virtual Private Cloud](#) (VPC) for securely isolating cloud resources
- [Amazon Elastic Compute Cloud](#) (EC2) for compute instances
- [Amazon Simple Storage Service](#) (S3) for storage
- [Amazon Route 53](#) for scalable and highly available Domain Name Service (DNS)
- [AWS Identity and Access Management](#) (IAM) for securely controlling access to AWS services and resources for users

The fully-automated solution makes use of open-source tools such as Chef, Ruby, Jenkins and Cucumber along with SaaS solutions from Loggly, New Relic and Cloudability. The entire infrastructure is committed as code to DMG's version-control repository.

DMG's Executive Director Charles Cole says, "By teaming with Stelligent, we were able to stand up a complete Continuous Delivery (CD) system and AWS infrastructure in much less time." Cole added, "Stelligent brought their experience in Continuous Delivery and AWS and seamlessly meshed with our team to create the CD system and infrastructure. With this fully automated approach, we can be more adaptive and responsive to our customers by releasing new features and changes based on business needs in a matter of minutes rather than a

multi-month release process."

The Benefits

This Continuous Delivery solution resulted in several benefits in AWS for DMG:

- More frequent and one-click releases
- Less internal constraints
- Higher levels of security
- Developer focus on value-adding features over running manual processes
- Elasticity, which reduces cost and idle resources

Each of these benefits is described in greater detail below.

By creating a fully-automated pipeline in which the complete software system - including the application code, configuration, infrastructure and data - is built and tested with every change, Cole added "...we can release software to users whenever we choose to do so as there isn't a separate manual release process; releasing is built into the development process. This reduces a multi-month release process into a matter of minutes."

While many larger organizations can be burdened by organizational silos, the Continuous Delivery model helps eliminate the constraints that impede regular software releases. Since the complete software system - including the infrastructure - is defined in code, any authorized team member - from development to operations - can make changes without the burdensome organizational bureaucracy that hinders many larger companies.

AWS also helps DMG maintain a high level of security through tools such as Virtual Private Cloud (VPC), Multi-Factor Authentication (MFA), IAM Roles and Server-Side Encryption. By coupling AWS with security best practices including encryption, DMG is able to maintain secure operations even extending to its own data center.

When developers can focus on adding new features rather than spending months trying to release the software, DMG gets happier customers, happier developers and a significant cost reduction as releasing becomes a "non-event" that happens with the click a button.

By only paying for usage, DMG can automatically scale its infrastructure up and down based on user demand. This way they only pay for what they're using rather than paying for unutilized hardware.

About Sony Pictures Technologies

The Digital Media Group (DMG) is a unit of Sony Pictures Technologies, which is part of Sony Pictures Entertainment, Inc. (SPE). SPE's global operations encompass motion picture production, acquisition and distribution; television production, acquisition and distribution; television networks; digital content creation and distribution; operation of studio facilities; and development of new entertainment products, services and technologies.

About Stelligent

Stelligent Systems LLC provides Continuous Delivery Solutions in Amazon Web Services (AWS) so that customers have always-releasable software. With Stelligent's core offering, companies receive a custom Cloud Delivery platform on top of AWS' infrastructure that is fully scripted, tested, versioned and continuous delivery systems so that customers can deliver software to users at the click of a button and/or with every good change. Stelligent uses many of AWS services including CloudFormation, EC2, OpsWorks, Route 53, S3 and VPC. Moreover, Stelligent has experience in infrastructure automation tools such as Chef along with Continuous Integration tools such as Jenkins.

Stelligent has worked with large companies and organizations such as Macy's, the National Cancer Institute, Advent Software and Symantec.

Next Step

To learn more about Cloud Delivery, visit http://www.stelligent.com/ or contact Stelligent at 888-924-4539.