Why Netflix, Amazon, and Apple Care About Microservices

Posted by Laura Mauersberger on 18 July 2017

The writing's on the wall - Netflix, Amazon, and Apple, are all trailblazers in microservice architecture. These three companies dominate continuous delivery, DevOps, and show first hand what microservice architecture can propel an organization into greatness.

WHAT IS MICROSERVI JRE?

Essentially, microservice architecture is a method of developing software applications as a suite of independently deployable, small, modular services in which each service runs a unique process and communicates through a well-defined, lightweight mechanism to serve a business goal. [1]

Netflix, eBay, Amazon, Forward, Twitter, PayPal, Gilt, Bluemix, Soundcloud, The Guardian, and many other large-scale websites and applications have all evolved from monolithic to microservices architecture. We'll focus on Netflix, Amazon, and Apple in this article.

WHY DO COMPANIES LIKE NETFLIX, AMAZON, AND APPLE CARE ABOUT MICROSERVICES?

Many reasons. Monolithic architecture was previously built as a single, autonomous unit. Whenever a slight modification or bug fix was needed, it often came with rebuilding and deploying an entirely new version of the application. With the implementation of microservices, processes are simplified, streamlined, easily scaleable.

Microservices — What an Enterprise Architect Needs to Know

[Whitepaper]: How to transform from a monolith to a microservices architecture with enterprise architecture – including best practices for introducing microservices »

Netflix:

Netflix is the king of microservices. In 2015, JAX unanimously selected Netflix for the Special Jury award, citing the developer team's huge influence on innovation and IT.

In order to keep up with booming demand, Netflix began to move a monolithic architecture to a cloud-based [illegible]ecture in 2009. At this time, the term microservices didn't eve[illegible]a monolithic architecture, Netflix was dealing with rapid g[illegible]nstant outages when Amazon's servers went down. Thanks to microservices architecture and modern UI technology, Netflix engineers deploy code thousands of times per day. Today Netflix services 93.8 million users globally, streaming more than ten billion hours of movies and shows.

Amazon:

Before, when amazon was on a monolithic server, it was hard to predict how to meet the fluctuating traffic demands. As a result, Amazon was bleeding money and most of the server capacity was wasted during downtimes. Moving to the Amazon Web Services (AWS) cloud allowed Amazon to scale up or down when necessary, reduce the number and duration of outages, and save money. Microservice architecture allowed Amazon to transition to continuous deployment, and now Amazon engineers deploy code every 11.7 seconds.

Apple:

Apple's relation to microservices can be highlighted in a different way. Apple developed Swift for building both iOS and Mac OSX applications. Swift code can be used to build microservices frameworks, which gives developers a wide range of opportunity. It is possible to build light-weight containers in Swift, which is an integral part of continuous deployment.

Pioneering companies are fast embracing the agile microservice framework. Has your company considered microservices?