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7 Tech Giants Embracing Microservices

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Enterprises are drifting further away from monoliths and closer towards microservice architecture for every app, website, and digital experience they develop.

The gravitation of microservices is so strong in fact, that the architecture is expected to become the default application architecture within the next five years according to 86 percent of "senior development stakeholders".

Why Are Tech Companies Embracing Microservices?

According to Ranga Rajagopalan, Co-founder and CTO at Fremont, Calif.-based Avi Networks, "microservices allows a team to break down a large, complex applications into smaller services or applications."

Rajagopalan explained that microservices enable smaller teams to:

Focus on a specific service and its functions

Scale the service independently

Provide more robust error handling and bug fixing

Ensure the service is highly available

And perhaps, more important of all, allow the team to rapidly iterate over the

service and develop new features.

"Microservices also enable continuous development that's open to incorporating new technology. Add in the ease of scaling, and it's easy to see why so many developers are using microservices," said Humberto Farias, CEO at Orlando, Fl.-based Concepta.

To illustrate just how far microservices have come, we've compiled eight tech companies who are already benefiting from a microservice architecture.

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1. Netflix

Netflix is often regarded as one of the pioneers of the microservice movement.

Netflix made the decision to break their monolith into microservices back in 2009, when their struggles with a monolithic architecture was causing the tech giant to experience growing pains as well as regular server outages. Adopting a microservice architecture was one of the factors that led to Netflix's phenomenal growth.

2. Amazon

"If you go back to 2001, the Amazon.com retail website was a large architectural monolith," Amazon's Rob Brigham told his audience at Amazon's re:Invent 2015 conference.

Back then, Amazon also struggled with managing its rapidly growing online presence. Meeting fluctuating web traffic demands was one thing, but Brigham also explained that the company, "noticed that it took a long time for a code change to go from a developer check-in, to be running in production where customers could use it."

Today, Amazon is perhaps the world's most prominent advocate of microservices, with Amazon Web Services (AWS) providing the infrastructure needed for companies to launch and manage containers and microservices on the fly.

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3. Uber

The globally recognized taxi-hailing app began its journey with a monolithic architecture that was built to serve the single city where it was founded, San Francisco.

Uber's unified and tightly coupled codebase delivered many, if not all, of Uber's core business processes, including connecting drivers with riders, billing, and payments. But as the business grew, they found it difficult to add new features and scale across the

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globe efficiently. Microservices were identified as the solution, and Uber is still going micro today.

4. eBay

According to the CTO of eBay, Steve Fisher, eBay utilizes more than 1,000 services with front-end services sending API calls and the back-end services executing tasks like shipping and administration.

Each development team at eBay is assigned their own set of services, and if a team wants to create a new service, they can access their specially built internal cloud portal to develop, test and deploy the service.

5. SoundCloud

SoundCloud has approximately 12 hours of audio uploaded onto the platform every minute — which is the kind of demand that a monolith would buckle under.

Prior to adopting a microservice architecture, SoundCloud was built on a legacy monolithic Rails system. In dealing with the challenge of scaling a large social network with a media distribution capability, SoundCloud decided to build their own microservices in Scala, Clojure, and Ruby.

6. Karma

Telecommunication provider, Karma, moved to a microservice architecture upon noticing that their former monolithic architecture was hampering developer productivity. It became difficult for them to keep track of changes that were made as the company grew.

7. Groupon

Voucher website Groupon began their year-long migration journey from a monolithic Ruby on Rails to a microservice architecture back in 2012.

When the rapid growth of their front-end codebase became too difficult to maintain, they decided to split their front-end monolith into microservices. Groupon noticed that their page loading times were significantly faster, their developers could build and deploy new features more rapidly, and global growth became more tenable.

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