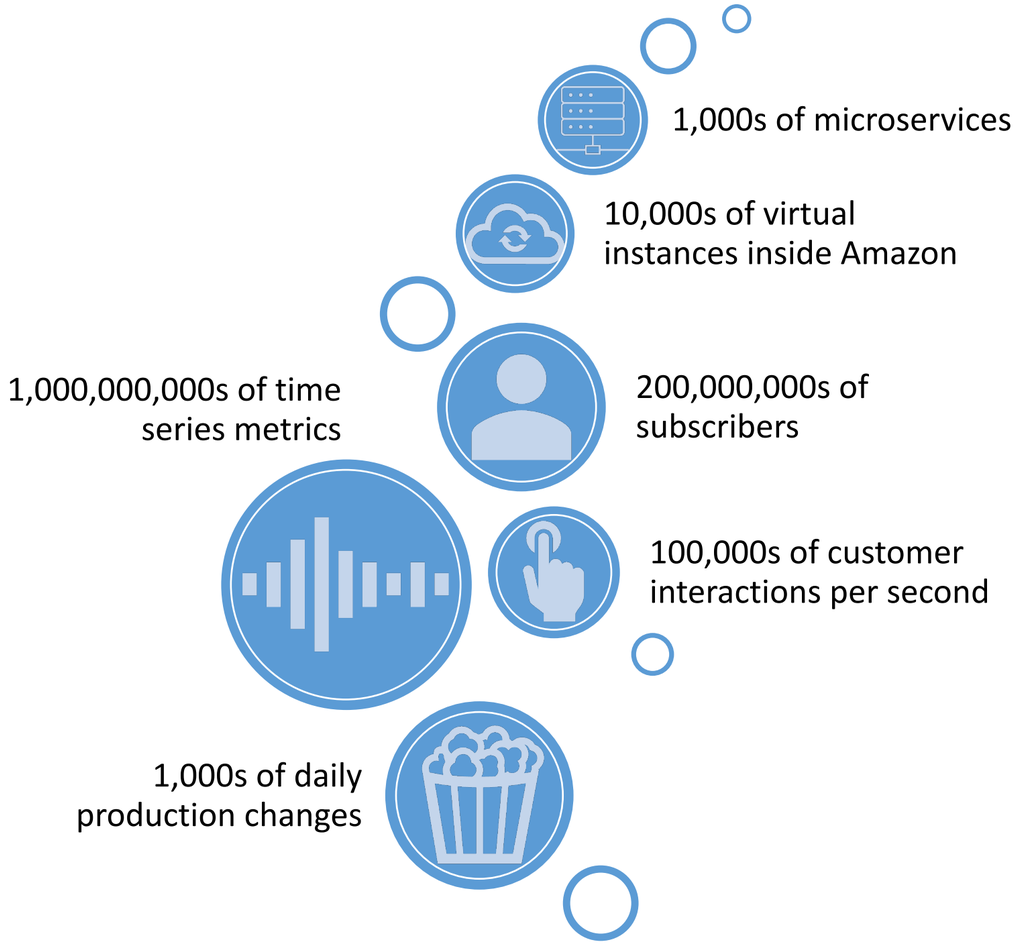
# kickoff della nuova Community AWS per un Cloud senza confini




Uptime 99.999%

Average RT 996 ms

≈70 DevOps Engineer

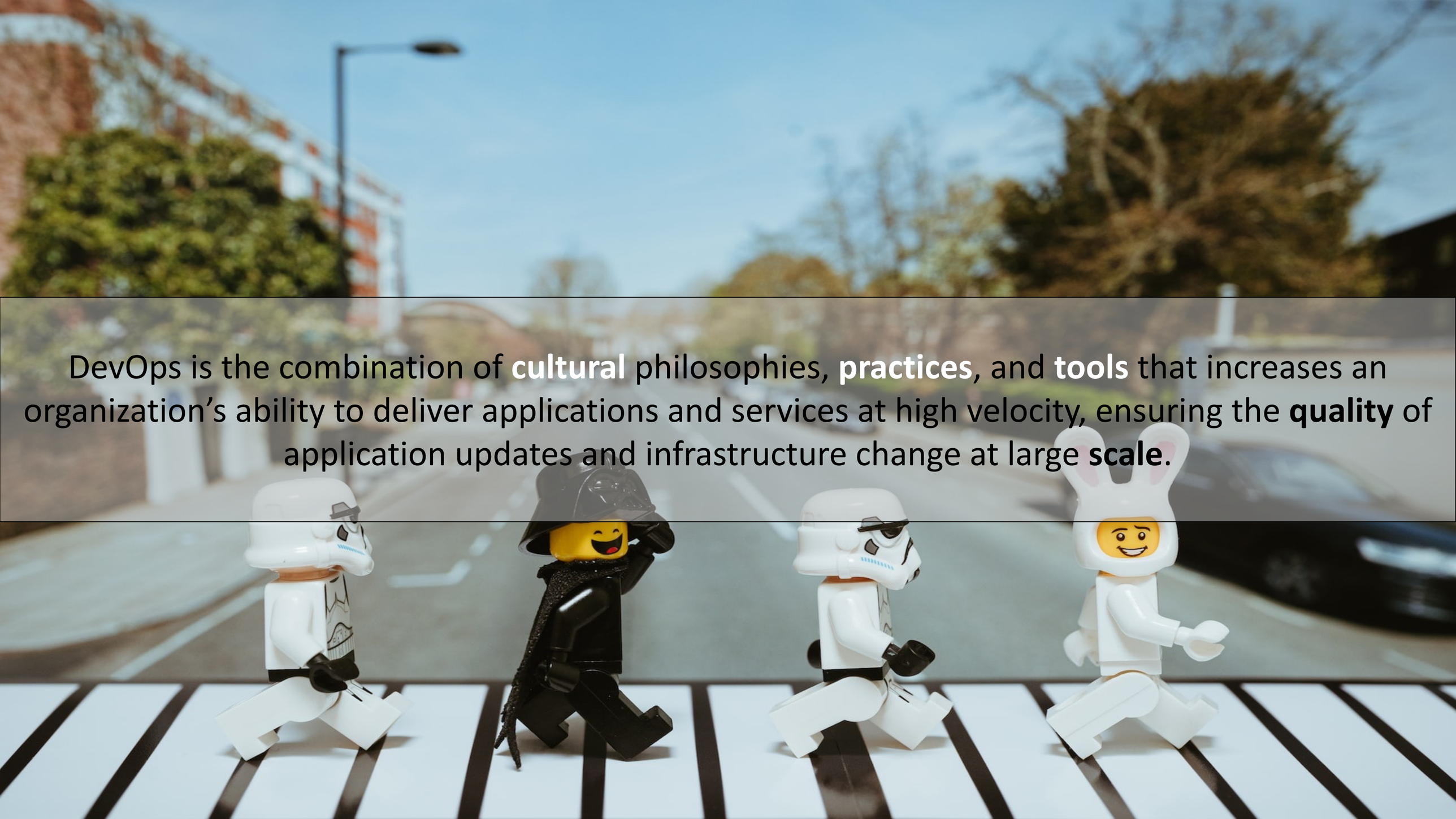
**Paolo Latella**
AWS Hero / Partner Ambassador
Amazon Authorized Instructor

# DevOps on AWS

@LatellaPaolo

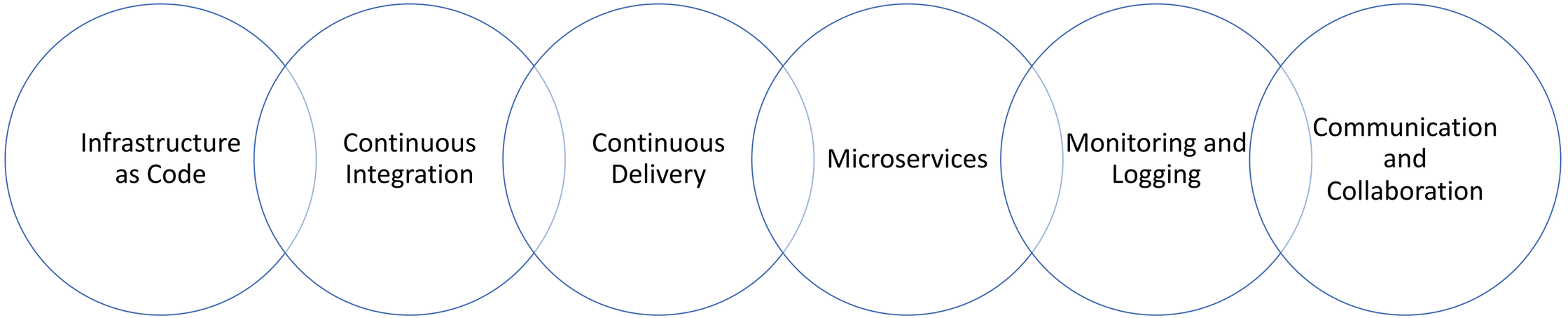
paololatella

Photo by charlesdeluvio on Unsplash



DevOps is the combination of **cultural** philosophies, **practices**, and **tools** that increases an organization's ability to deliver applications and services at high velocity, ensuring the **quality** of application updates and infrastructure change at large **scale**.

# DevOps Practice



# DevOps Tools - Infrastructure as Code

## Templated Infrastructure Provisioning

**AWS CloudFormation**

AWS CloudFormation gives developers and systems administrators an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion. You can use AWS CloudFormation's sample templates or create your own templates.

Learn more »

## Chef Configuration Management

**AWS OpsWorks**

AWS OpsWorks is a configuration management service that uses Chef, an automation platform that treats server configurations as code. OpsWorks uses Chef to automate how servers are configured, deployed, and managed across your Amazon Elastic Compute Cloud (Amazon EC2) instances or on-premises compute environments. OpsWorks has two offerings, AWS Opsworks for Chef Automate, and AWS OpsWorks Stacks.

Learn more »

# DevOps Tools - CI/CD

## Software Release Workflows

**AWS CodePipeline**

AWS CodePipeline is a continuous integration and continuous delivery service for fast and reliable application and infrastructure updates. CodePipeline builds, tests, and deploys your code every time there is a code change, based on the release process models you define. This enables you to rapidly and reliably deliver features and updates.

Learn more »

## Build and Test Code

**AWS CodeBuild**

AWS CodeBuild is a fully managed build service that compiles source code, runs tests, and produces software packages that are ready to deploy. With CodeBuild, you don't need to provision, manage, and scale your own build servers. CodeBuild scales continuously and processes multiple builds concurrently, so your builds are not left waiting in a queue.

Learn more »

## Deployment Automation

**AWS CodeDeploy**

AWS CodeDeploy automates code deployments to any instance, including Amazon EC2 instances and on-premises servers. AWS CodeDeploy makes it easier for you to rapidly release new features, helps you avoid downtime during application deployment, and handles the complexity of updating your applications.

Learn more »

## Unified CI/CD Projects

**AWS CodeStar**

AWS CodeStar enables you to quickly develop, build, and deploy applications on AWS. AWS CodeStar provides a unified user interface, enabling you to easily manage your software development activities in one place. With AWS CodeStar, you can set up your entire continuous delivery toolchain in minutes, allowing you to start releasing code faster.

Learn more »

# DevOps Tools - Microservices

## Production Docker Platform

**Amazon Elastic Container Service**

Amazon Elastic Container Service (ECS) is a highly scalable, high performance container management service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.

Learn more »

## Serverless Computing

**AWS Lambda**

AWS Lambda lets you run code without provisioning or managing servers. With Lambda, you can run code for virtually any type of application or backend service - all with zero administration. Just upload your code and Lambda takes care of everything required to run and scale your code with high availability.

Learn more »

# DevOps Tools - Monitoring and Logging

## Cloud and Network Monitoring

**Amazon CloudWatch**

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. You can use Amazon CloudWatch to collect and track metrics, collect and monitor log files, set alarms, and automatically react to changes in your AWS resources.

Learn more »

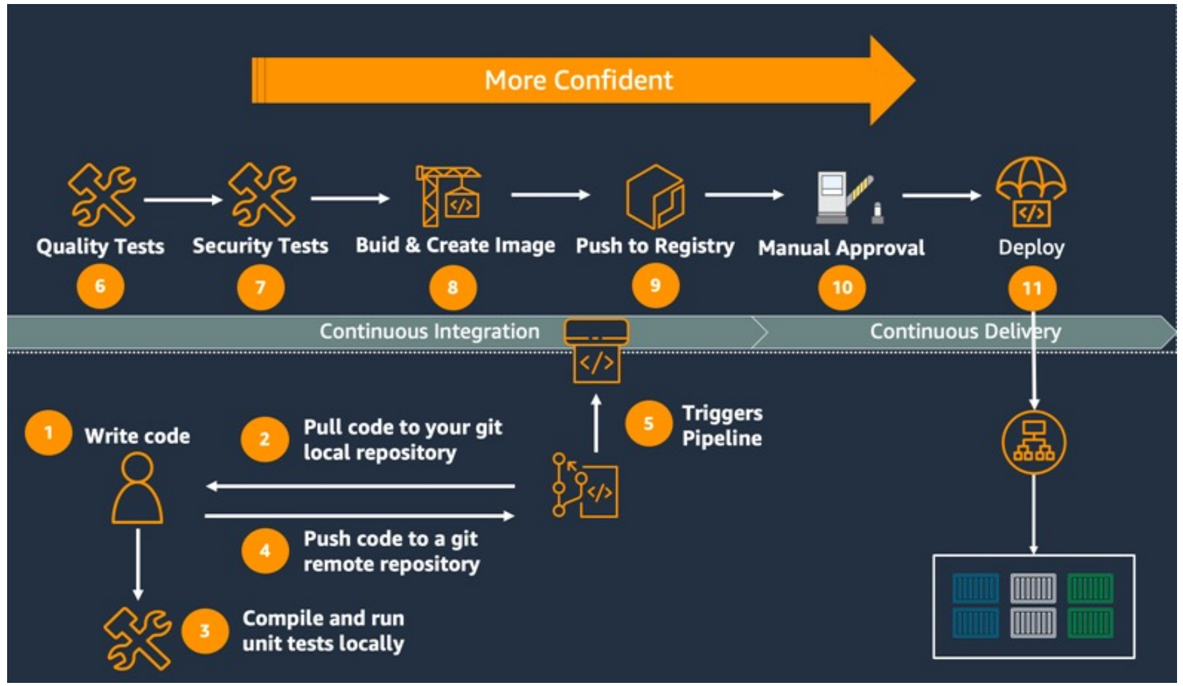
## Distributed Tracing

**AWS X-Ray**

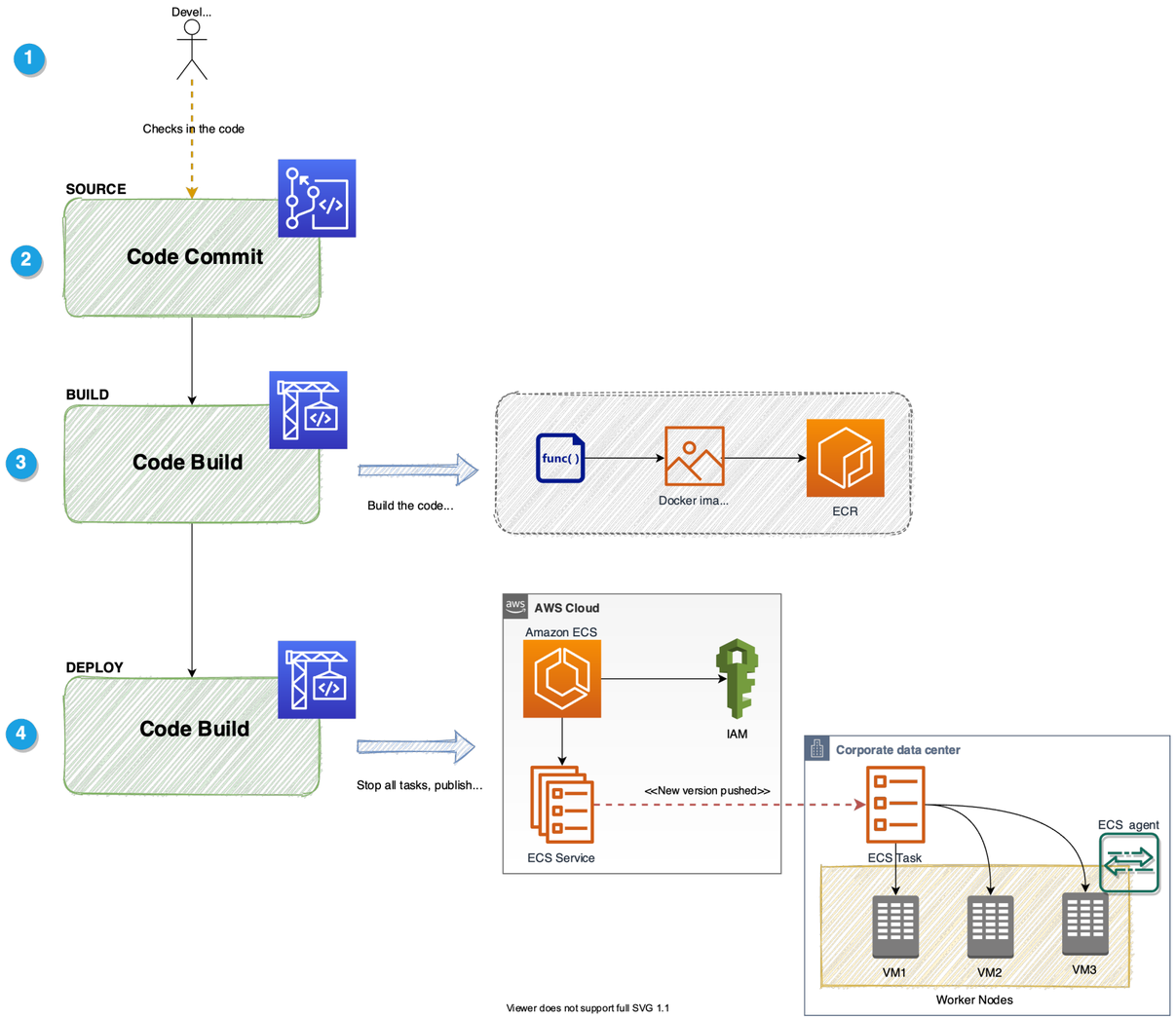
AWS X-Ray helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture. With X-Ray, you can understand how your application and its underlying services are performing to identify and troubleshoot the root cause of performance issues and errors.

Learn more »

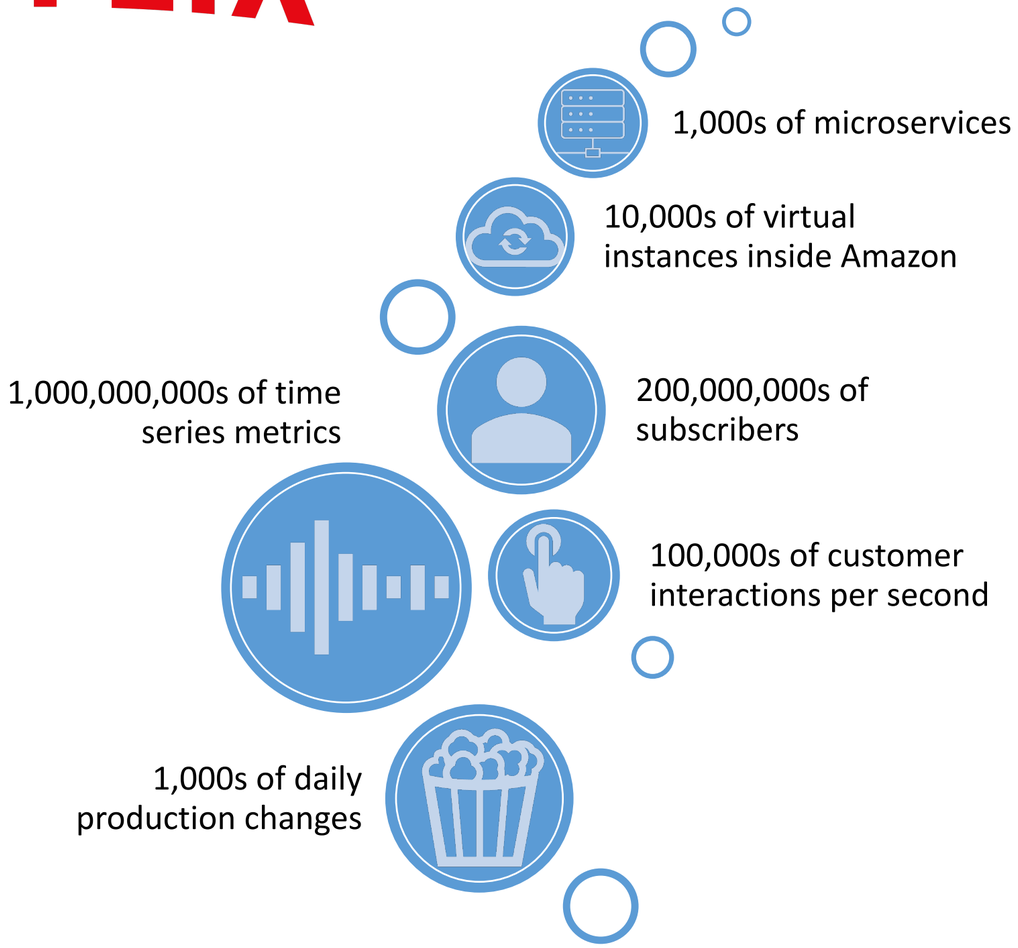
# A simple CI/CD workflow



# Demo


Devel...
1
Checks in the code
SOURCE
Code Commit
2
BUILD
Code Build
3
Build the code...
func( )
Docker ima...
ECR
DEPLOY
Code Build
4
Stop all tasks, publish...
AWS Cloud
Amazon ECS
IAM
ECS Service
<<New version pushed>>
Corporate data center
ECS Task
ECS agent
VM1
VM2
VM3
Worker Nodes
Viewer does not support full SVG 1.1

NETFLIX




aws

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# THANK YOU!

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