

OpenFaaS

Functions as a Service



OPENFAAS

Serverless Functions Made Simple

Serverless

Serverless processing allows you to create builds and run applications and services **without having to manage any servers**. Serverless applications do not require provisioning, scaling or server management. They can adapt to almost any type of back-end application or service; all the operations necessary for the execution and **scalability** of the application will be managed **automatically**.

Advantages

Cost

Only the necessary resources are used, the capacity will be optimized based on the units needed.

Scalability

Application resources will be recalibrated automatically.

No Server Management

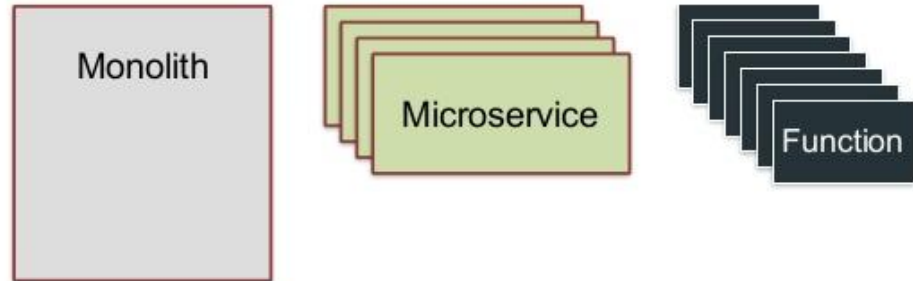
It is not necessary to allocate or manage servers.

Functions as a Service

Function-as-a-Service (FaaS) offers the possibility to implement what is essentially a single function.

Complete server **abstraction** from the developer.

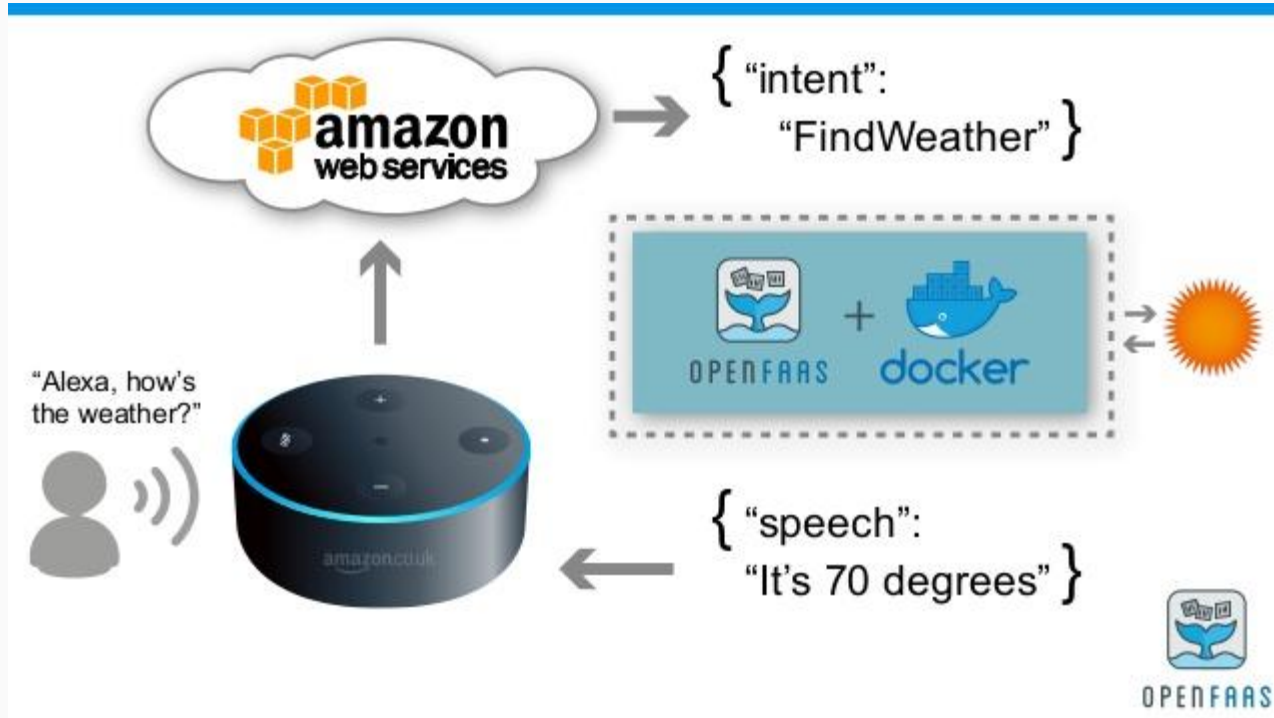
What is Serverless?



Serverless evolution



How OpenFaaS works



OpenFaaS Structure

OpenFaaS (Functions as a Service) is a framework for building serverless functions with Docker and Kubernetes which has first class support for metrics. Any process can be packaged as a function enabling you to consume a range of web events without repetitive boiler-plate coding.

Functions as a Service

API Gateway

Function Watchdog



Prometheus



Swarm



Kubernetes



docker

Demo Time

Some example functions

FaaS Gateway

NEW FUNCTION

func_wordcount

func_markdown

func_nodeinfo

func_hubstats

func_echoit

func_decodebase64

func_webhookstash

func_markdown

Replicas1Invocation count40

Imagealexellis2/faas-markdownrender:latest@sha256:c1b0245042afe172c693f725100c6e8a5078a9%

Invoke function

INVOKE

☒ Text

☐ JSON

Request body

Invoke functions with 'curl' or use the web portal - this will give the count of public repos on the Docker hub for a user.

curl -X POST -d "alexellis2" -v http://localhost:8080/function/func_hubstats

Response status

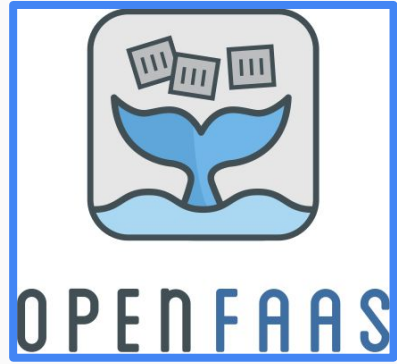
200

Response body

<p>Invoke functions with <code>curl</code> or use the web portal - this will give the count of public repos on the Docker hub for a user.</p>

<pre><code># curl -X POST -d ""alexellis2" -v

My Project Structure



Thank You!



GitHub Project

<https://github.com/jacopo1395/openfaas>



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