



# Serverless Architecture Shootout

VS

aws





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# The first rule

The first rule of Serverless is,  
you talk about Serverless



# Functions as a Service

Run code without ever thinking about a server

DONT  
THINK



# The Challengers

Resource Groups | myTimeSheet | ARN - arn:aws:lambda:us-east-1:770460065111:function:myTimeSheet

Qualifiers | Actions | ListMyProjects | Test

Monitoring

myTimeSheet

- Alexa Skills Kit
- Amazon CloudWatch Logs

Add triggers from the list on the left

Resources the function's role has access to be shown here

run.CSX | Save | Run | </> Get function URL

```
1 using System.Net;
2 using KenticoCloud.Delivery;
3 using System.Configuration;
4
5 public static async Task<HttpResponseMessage> Run(HttpRequestMessage request)
6 {
7     System.Net.ServicePointManager.SecurityProtocol = SecurityProtocolType.Tls12;
8     string strEvents = "";
9
10    // Get the Kentico Cloud content
11    DeliveryClient client = new DeliveryClient(ConfigurationManager.AppSettings["KenticoCloudURL"]);
12
13    // Get the fact items from Kentico Cloud
14    var response = await client.GetItemsAsync(
15        new EqualsFilter("system.type", "speakingengagement"),
16        new GreaterThanFilter("elements.date", DateTime.Now.ToString()),
17        new LimitParameter(1),
18        new OrderParameter("elements.date", SortOrder.Ascending)
19    );
20
21    if(response.Items != null)
22    {
23        foreach(var item in response.Items)
24        {
25            DateTime date = DateTimeOffset.Parse(item.GetString("date")).ToDateTimeOffset();
26            strEvents += "On " + date.ToString("MMMM d, yyyy") + ", ";
27        }
28    }
29    else
30    {
31        strEvents = "Bryan does not have any upcoming speaking engagements";
32    }
33
34    log.Info(strEvents.ToString());
35
36    // Create the JSON response to send to the Alexa Skill
```

View files | Test

- + Add | Upload | Delete
- SolitisWebEventsFunction
  - function.json
  - project.json
  - project.lock.json
  - run.csx

Logs | Errors and warnings

# Demos

# Developer Experience

- Developer tools
- Debugging
- Execution

c:\>func



Azure Functions Core Tools (2.0.1-beta.22)

Function Runtime Version: 2.0.11415.0

Usage: func [context] [context] <action> [-/--options]

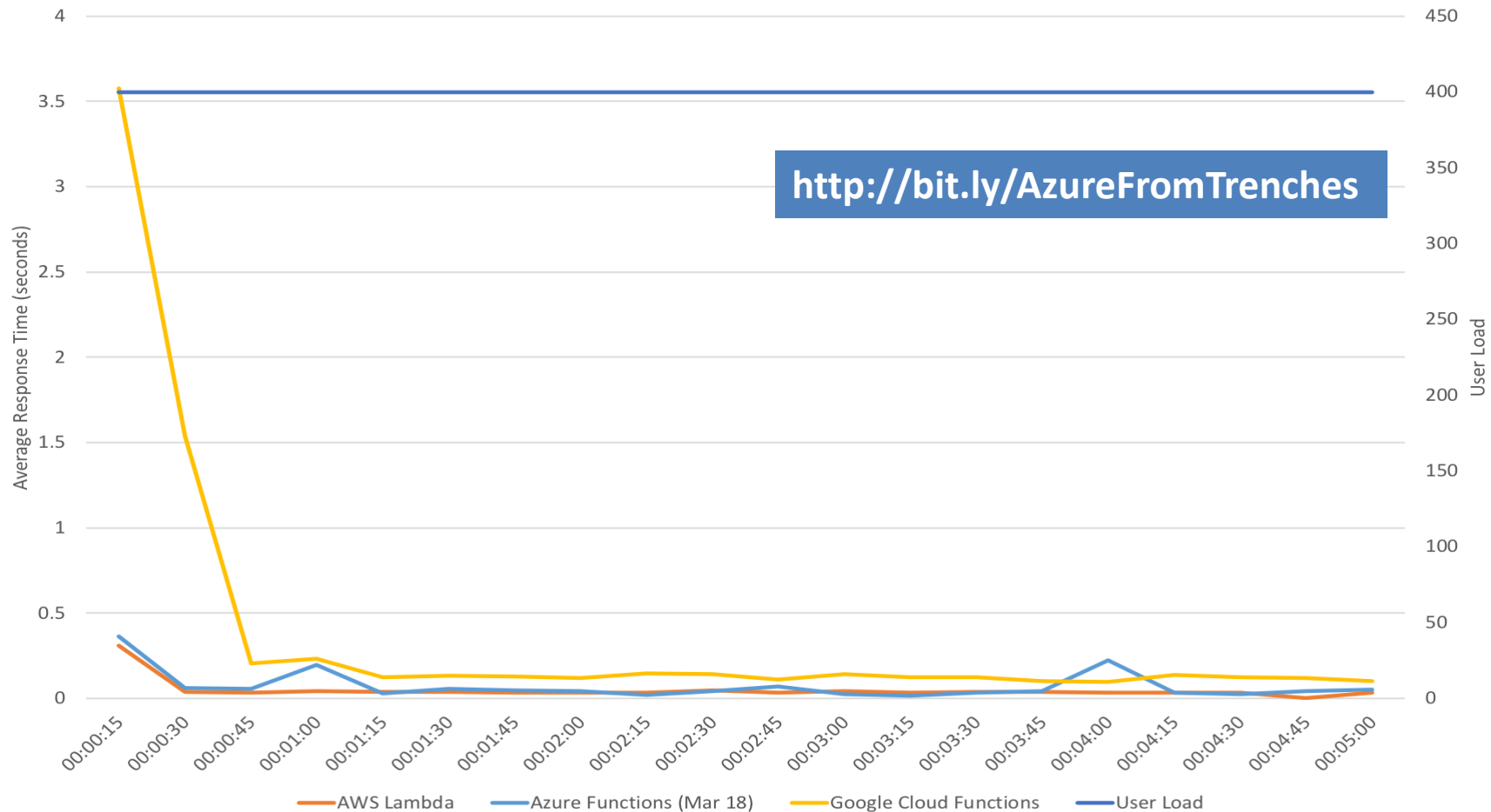
## Contexts:

<b>azure</b>	Commands to log in to Azure and manage resources
<b>extensions</b>	Commands for installing extensions
<b>function</b>	Commands for creating and running functions locally
<b>host</b>	Commands for running the Functions host locally
<b>settings</b>	Commands for managing environment settings for the local Function
<b>templates</b>	Commands for listing available function templates

## Actions:

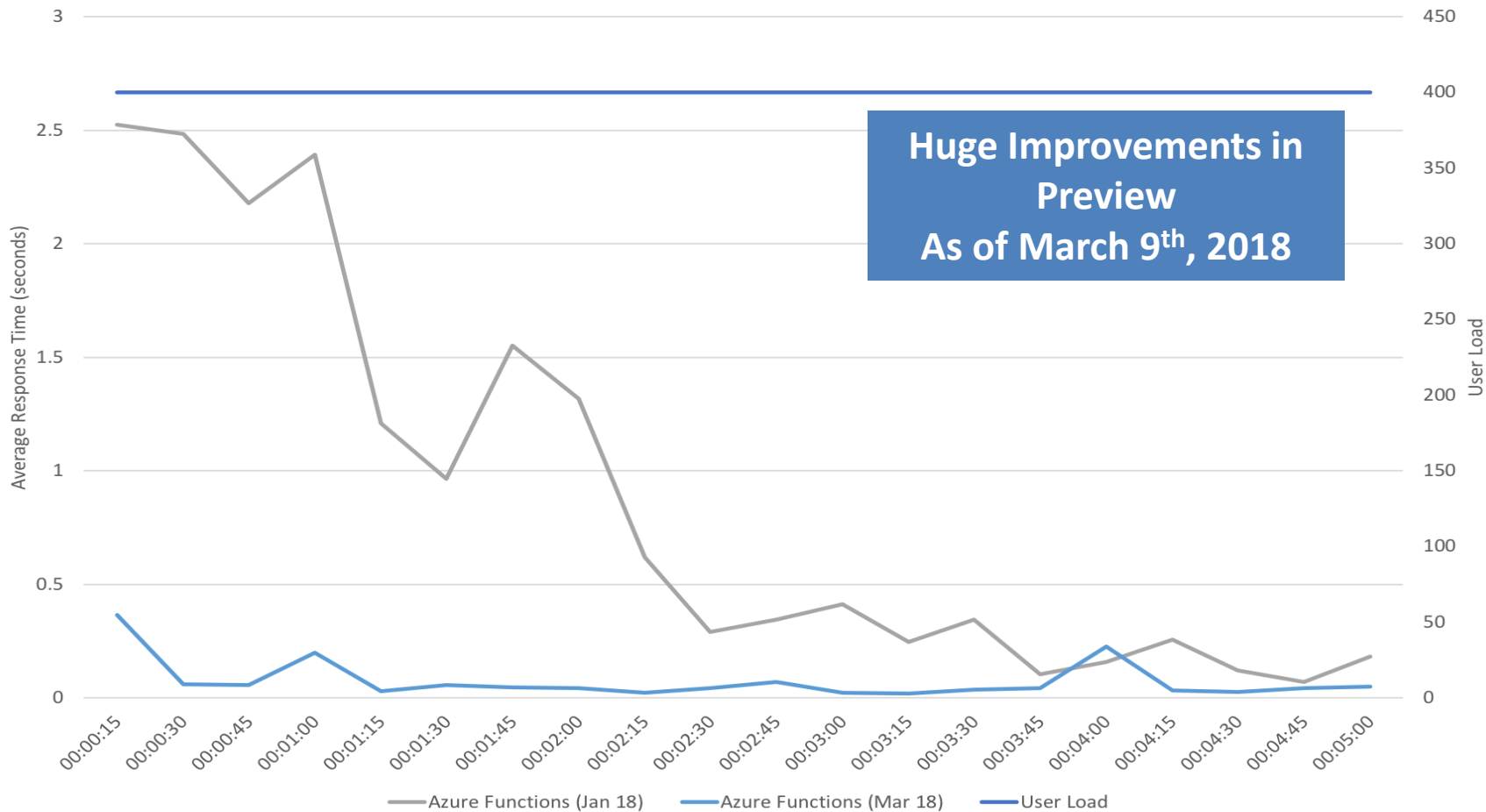
**new** Create a new function from a template. Aliases: new, create  
 --language [-l] Template programming language, such as C#, F#, JavaScrip

# Performance





Azure Functions - Performance - January 2018 vs March 2018





Your vote?

# API Proxies / Gateways

Create, publish, maintain, monitor,  
and secure APIs at scale





The Challengers



## APIs

PetStore

**Resources**

Stages

Authorizers

## Resources

Actions ▾

## / Methods

- ▼ /
  - GET
  - ▼ /pets
    - GET
    - OPTIONS
    - POST
    - ▼ /{petId}

## GET

## Mock Endpoint

Authorization **None**

API Key Not required

# Demo

# Azure API Management Pricing

	DEVELOPER	BASIC
Purpose	Non-production use cases and evaluations	Entry-level production use cases
Price (per unit)	~\$48.04/month	~\$147.17/month
Cache (per unit)	10 MB	50 MB
Scale-out (units)	1	2
SLA	No	99.9%
Azure Active Directory integration	Yes	No
Virtual Network support	Yes	No
Multi-region deployment	No	No
Estimated Maximum Throughput <sup>2</sup> (per unit)	500 requests/sec	1,000 requests/sec

# AWS pricing for API Gateway

## Free Tier

The Amazon API Gateway free tier includes one million API calls received per month for up to 100,000 API calls per month, you will be charged the API Gateway rates.

## Pricing Examples

An API that receives five million API calls per month, with each API call returning responses of 3 kilobytes (KB) in size with no caching.

*Example below reflects pricing for US East, US West, EU (Ireland)*

Amazon API Gateway API call charges      5 million \* \$3.50/million = **\$17.50**

Total size of data transfers      3 KB \* 5 million = 15 million/KB = 14.3 GB

Amazon API Gateway data transfer charges      14.3 GB \* \$0.09 = **\$1.29**

**Total Amazon API Gateway charges      \$17.50 + \$1.29 = \$18.79**



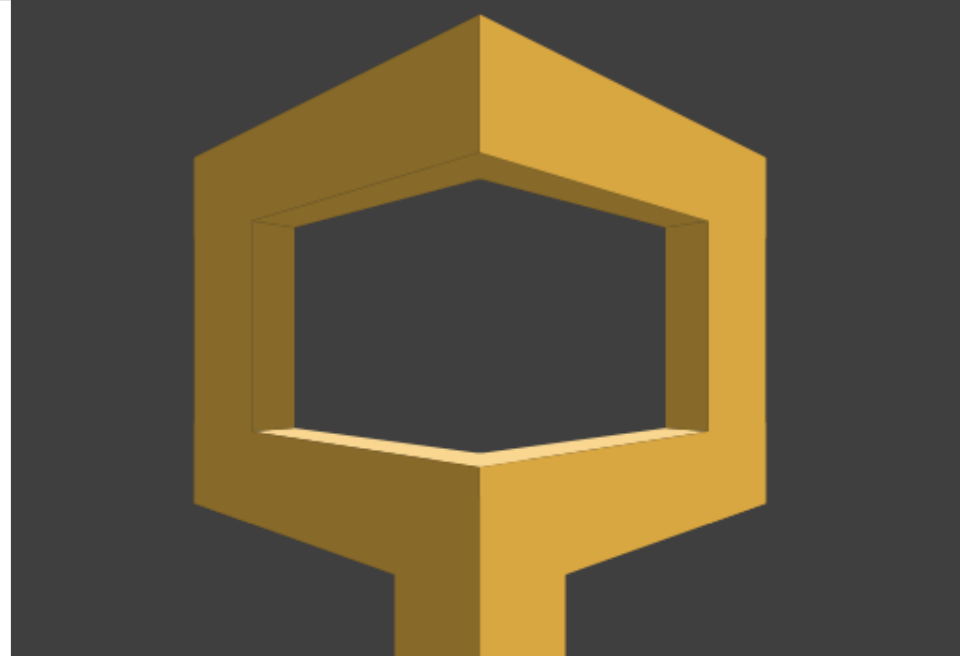
Your vote?

Search as a Service

Tired of search slowing you down?







# The Challengers

+ Create a resource

All services

FAVORITES

Dashboard

Resource groups

All resources

Home > bizstream > quotesindex

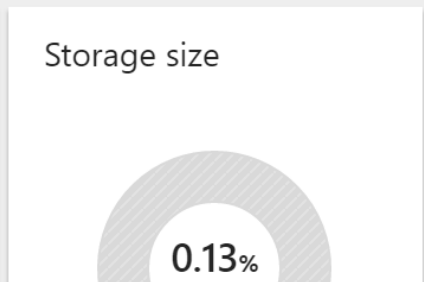
# quotesindex

Indexes

- + Add/Edit Fields
- + Add scoring profile
- Edit CORS options
- Delete

## Usage

Document count	
Index	99
Service	118



Search explorer

# Demo



Your Vote ?

# Content as a Service

Model: Tesla S

Price: \$120,000

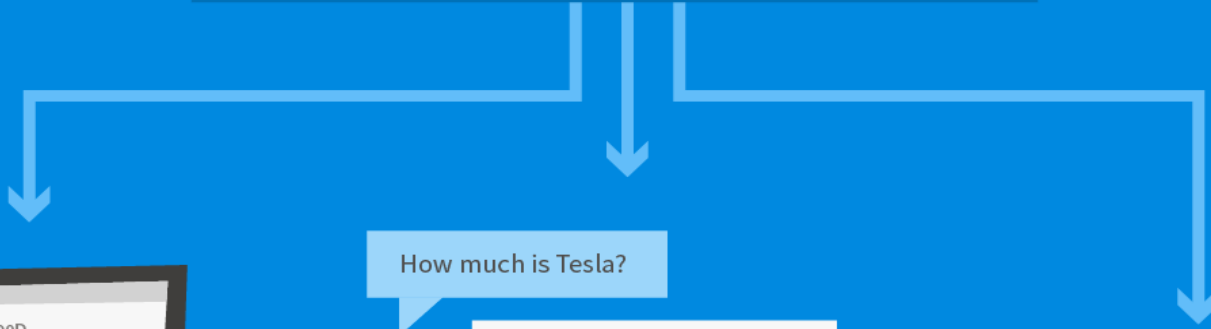
Maker: Tesla, Inc.

Photo:

Variant: P100D



Description: The model S is...



How much is Tesla?

Model P100 D is \$120,000





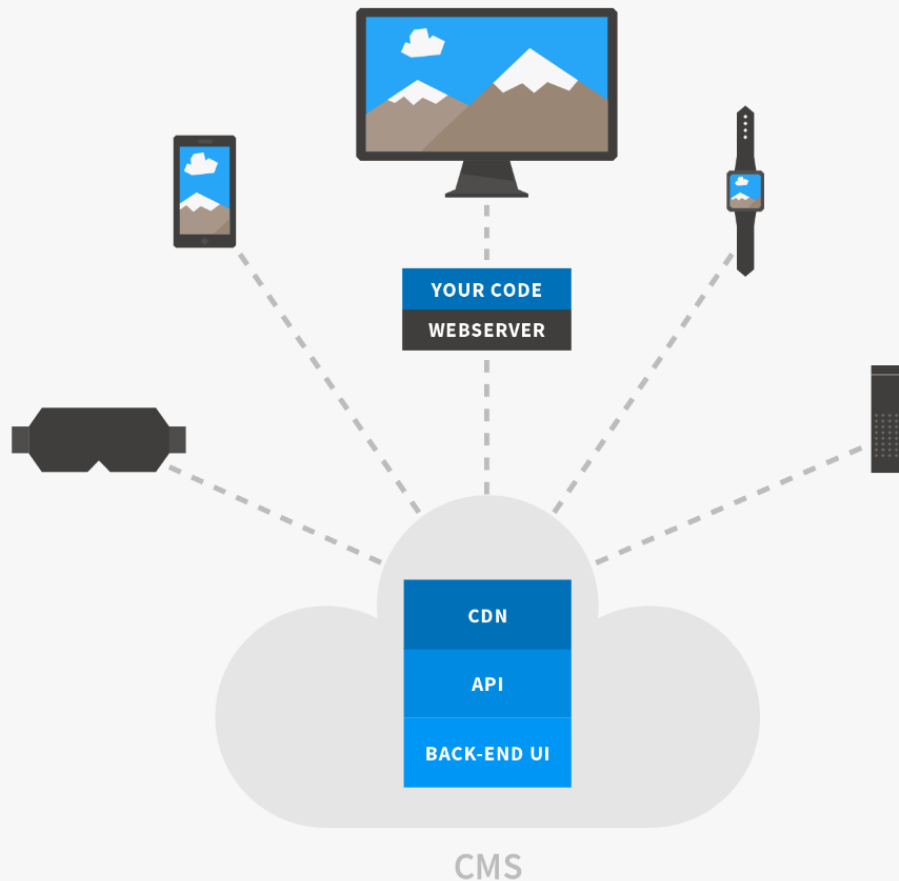
# Headless CMS Challengers



API first approach


Cloud-hosted

Choose any programming language you like



GET

[https://deliver.kenticocloud.com/project\\_id/items](https://deliver.kenticocloud.com/project_id/items)

 Try It

cURL .NET

```
using KenticoCloud.Delivery;

DeliveryClient client = new DeliveryClient("975bf280-fd91-488c-994c-2f04416e5
ee3");

DeliveryItemListingResponse response = await client.GetItemsAsync(
    new EqualsFilter("system.type", "article"),
    new ElementsParameter("title", "summary", "post_date", "teaser_image"),
    new ContainsFilter("elements.personas", "coffee_lover"),
    new OrderParameter("elements.post_date", SortOrder.Descending),
    new DepthParameter(0),
    new LimitParameter(3)
);

var items = response.Items;
```

Clone the repo and install the dependencies.

```
git clone https://github.com/contentful/the-example-app.csharp.git
```

```
dotnet restore
```

## Steps for read-only access

To start the server, run the following

```
dotnet run
```

Open <http://localhost:3000> and take a look around.

<http://github.com/contentful/the-example-app.csharp>

Home > Courses > Hello Contentful

### Table of contents

- ☑ Course overview
- APIs
- Content model
- Content management
- Summary

## Hello Contentful

OVERVIEW



# Content inventory

## Filter content

### WORKFLOW STEP

- Draft
- Review
- Ready to publish
- Scheduled
- Published

### PUBLISHING STATE

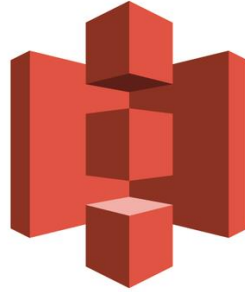
- Published

## 38 Content items

<input type="checkbox"/>	Name	Workflow s...	Type	Status
<input type="checkbox"/>	Request a Demo (Page)	Published	Contact / Request Dem...	✔ All done
<input type="checkbox"/>	About Us	Published	Full Width Content (Page)	✔ All done
<input type="checkbox"/>	Master	Published	Master (Layout)	✔ All done

# Demo

# Who Reigns Supreme?



Amazon CloudSearch



# Our Winner





Questions



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