

# Building APIs Rapidly with Azure Functions

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CLOUD ARCHITECT

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# Overview



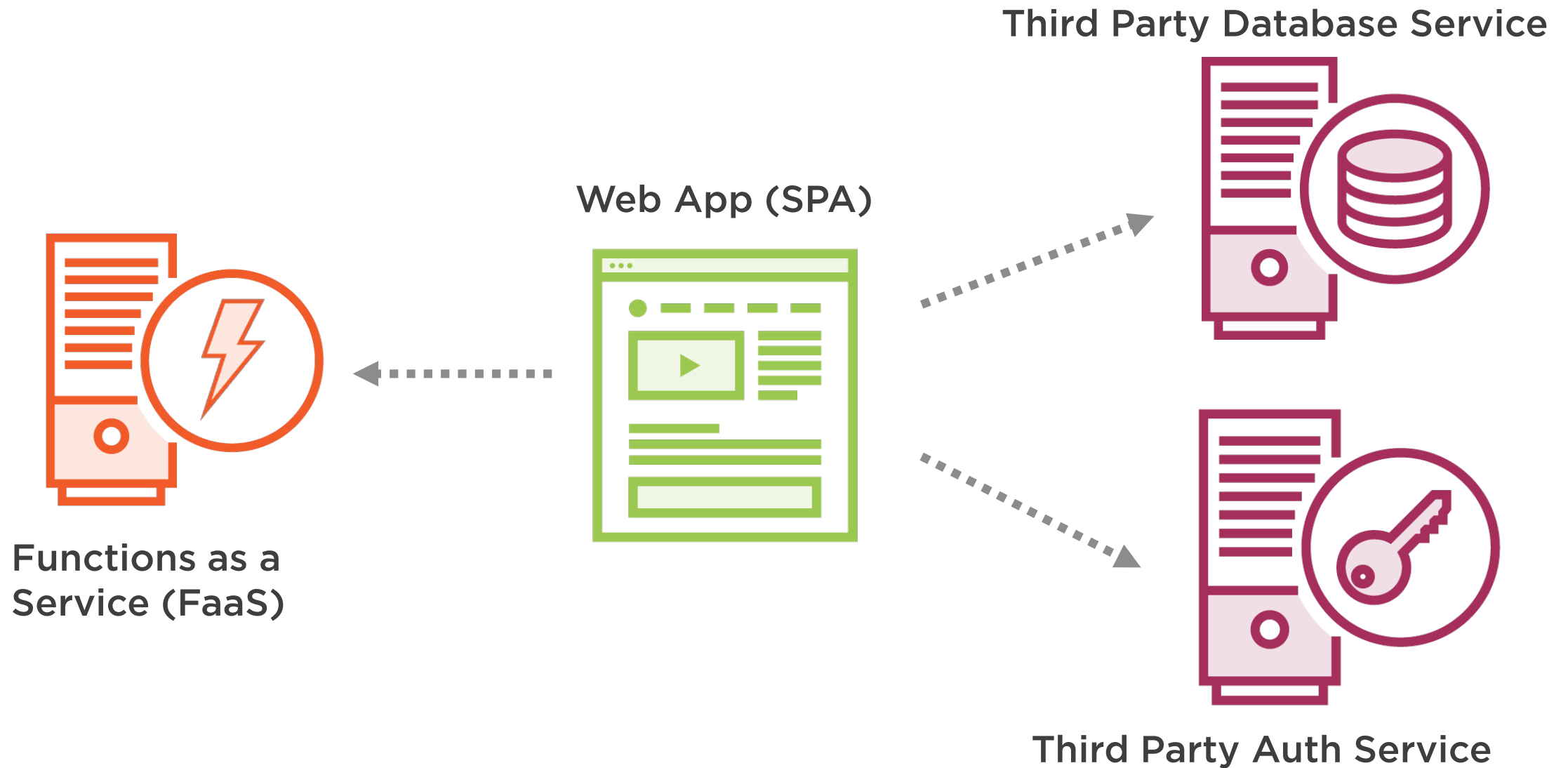
## Introducing Azure Functions

### “Who’s Playing” functions

- Create a new event
- Send invitation emails
- Get event details



# A Serverless Architecture



# Azure Functions



## Functions as a Service (FaaS)

- You simply provide the function

## Use your preferred language

- C#, JavaScript, F# and many more

## Group functions into “Function Apps”

# Azure Functions Triggers



Timer



Queue



HTTP Request



# Azure Functions



## Bindings

- Integrate with queues, blob storage etc

## Automatic Scale

- Process queue messages in parallel

## Pricing model

- No fixed monthly fee
- Pay for what you use
- Monthly free grant

# Azure Functions Fundamentals

★★★★☆ By Mark Heath

Discover how Azure Functions allows you to easily write serverless code in your language of preference to handle events at scale, with minimal overhead and cost.

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## Course info

Rating ★★★★★ (44)

Level Intermediate

Updated January 28, 2017

Duration 3h 15m

## Description

Azure Functions enables you to write serverless code to handle events at scale, with minimal overhead and cost. In this course, Azure Functions Fundamentals, you'll learn what Azure Functions is intended for, why you might want to use it, and you're going to see loads of demos of how simple it is to create your own functions. First, you'll learn how to work with both C# and JavaScript functions. Next, you'll use many different triggers and binding types supported by Azure functions including monitoring queues. Then, you'll explore how to work with blob storage, sending emails, and how to develop in Visual Studio or from the command line with a text editor, if you prefer. Finally, you'll discover how to automate deployments, as well as how to debug and monitor our functions. By the end of this course, you'll be ready to create, deploy, and manage your own Azure Functions applications.

## Course Overview

2m 3s

Course Overview

2m 3s

## Introducing Azure Functions 29m 25s

Module Introduction 2m 16s

Introducing Azure Functions 2m 22s

Azure VMs, Cloud Services, and Web Apps 5m 0s

What's Different About Azure Functions? 2m 13s

App Service and Functions Pricing 4m 16s

Benefits of Azure Functions 1m 49s

Introducing Serverless Architecture 2m 23s

Serverless - A Real-world Example 4m 8s

## Recommended

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WHITEPAPER

Five proven ways to motivate

# Adding Functions to Our Application



Receive Email  
Invitation



View Existing  
Responses

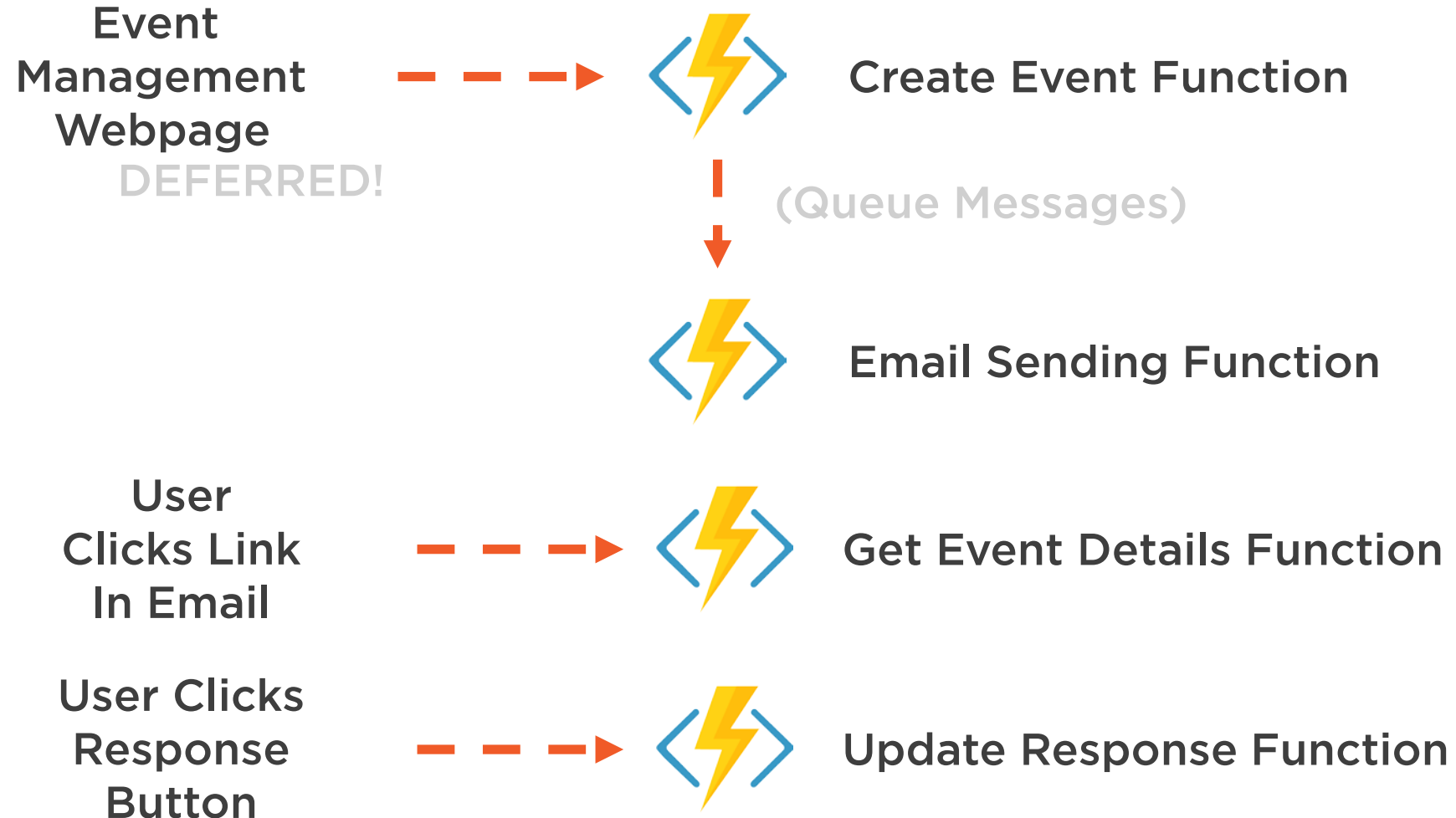


Submit My  
Response





# What Functions Do We Need?



# Function Security



## **No login required**

- Email contains unique personalised token

## **Similar to “shared access signatures”**

- Should be time limited
- Should be scope limited

**There are other ways to secure our functions**

# Demo



## Create an Azure Function app

- Create a storage account
- Choose a pricing model



# Demo



## Create Event Function

- HTTP Trigger
- Create a unique response code
- Post a message to a queue



# Demo



## Send Emails Function

- Queue trigger
- SendGrid output binding



# Demo



## Get Event Details Function

- HTTP triggered
- Return hard-coded JSON
- Set up a CORS rule



# Summary



## Azure Functions

- Rapidly implement backend API
- Code in the portal or locally

## Create Event Function

- Generate unique response code
- Post queue messages

## Send Invitations Function

- Send email with personalized link

## Get Event Details Function

- Called by web page
- Configure CORS



We need a database!

