

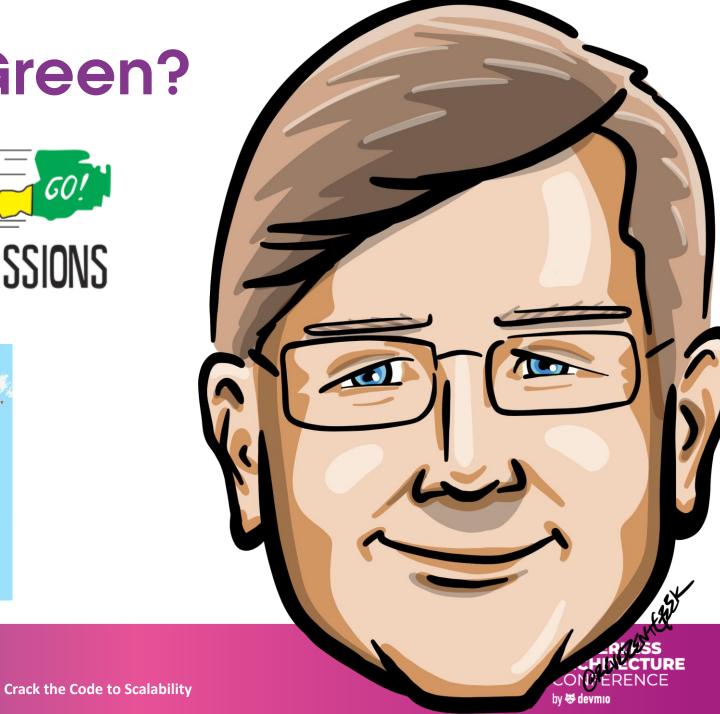
# Crack the Code to Scalability

Mastering Serverless Architectures for Unstoppable Apps!

#### Who is Chad Green?







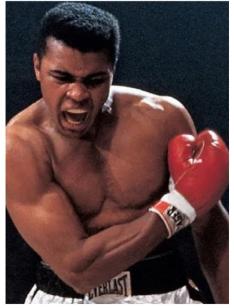
## My hometown















## Grew up in software development







## Lots of Programming Languages

# BASIC

Microsoft BASIC

**GW-Basic** 

QuickBASIC

Visual Basic

**VB.NET** 

C++

C#

Java

Niche

JavaScript

**Pascal** 

Python

PHP

**COBOL** 



## Software development paradigms

**Console Applications** 

**Desktop Applications** 

**Distributed Desktop Applications** 

Web Applications

**Distributed Web Applications** 

COM

**DCMO** 

.NET

**Entity Framework** 

MVC

Service-Oriented Architecture

Microservices

**Cloud-Computing** 

# Serverless Computing



## Serverless Computing

Functions-as-a-Service

**Event-Driven Architecture** 

Microservices



## Work Experience





#### Disclaimer





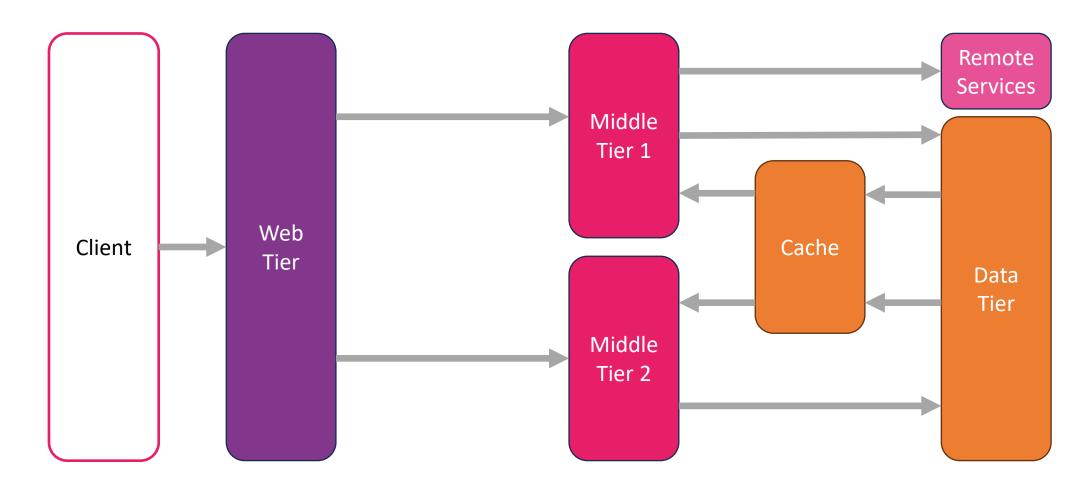


# **Architecture Styles**

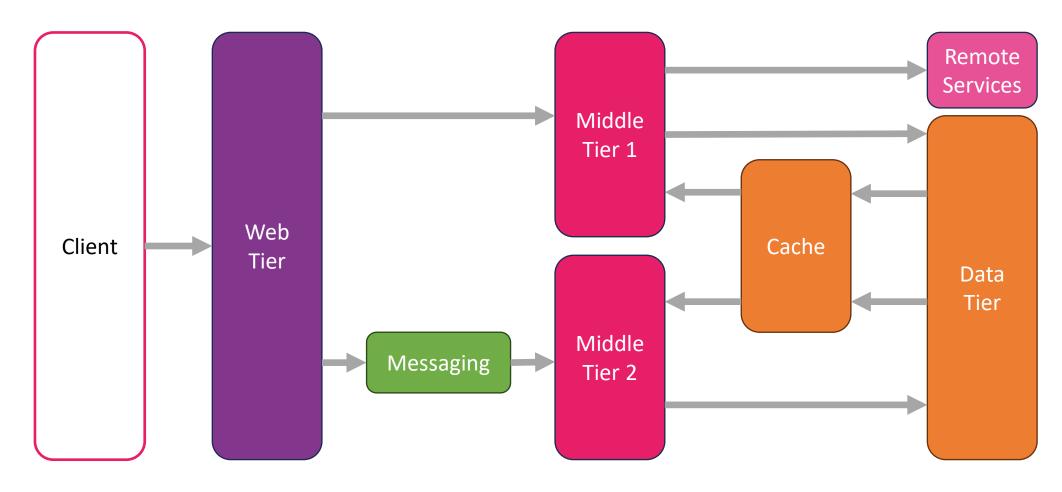
Crack the Code to Scalability



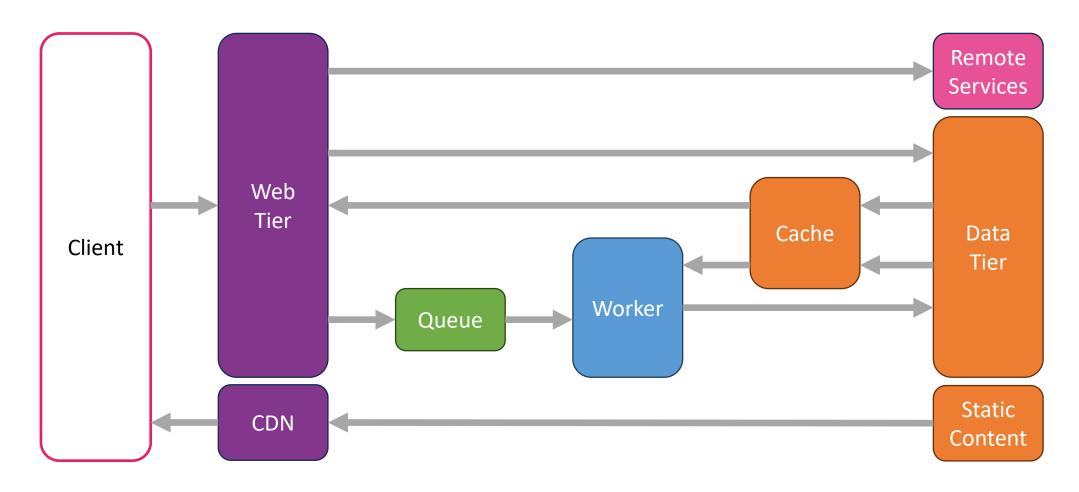
#### **N-Tier**



## N-Tier with Messaging

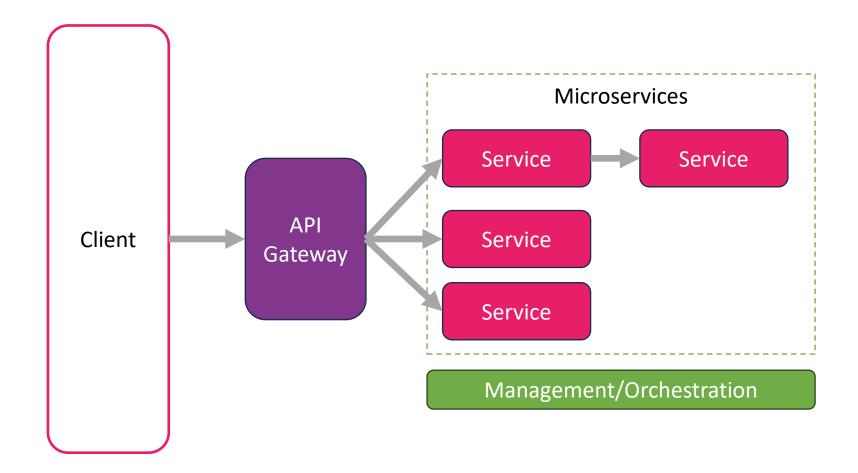


#### Web-Queue-Worker





#### Microservices



#### **Event-Driven Architecture**

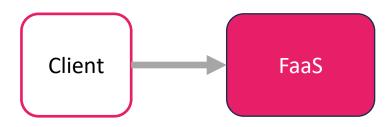


# Serverless Design Patterns

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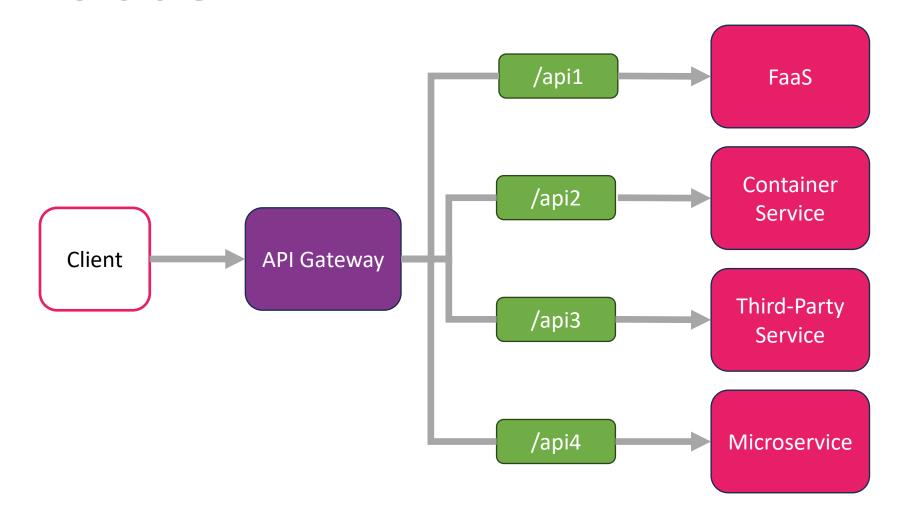


## Simple Web Service



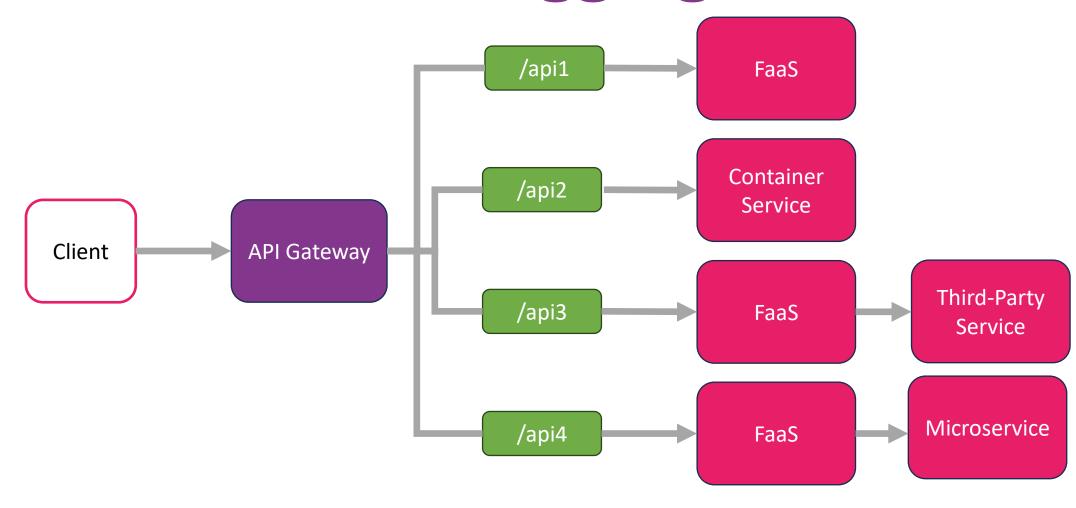


#### **Robust API**

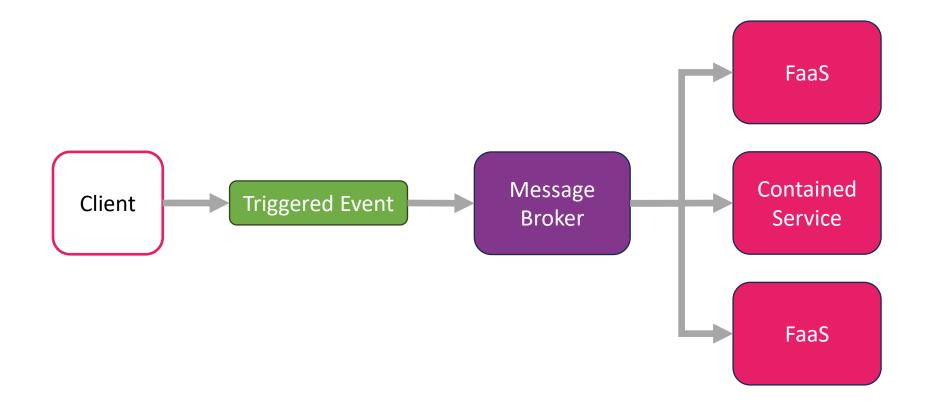




#### Robust API with Aggregation

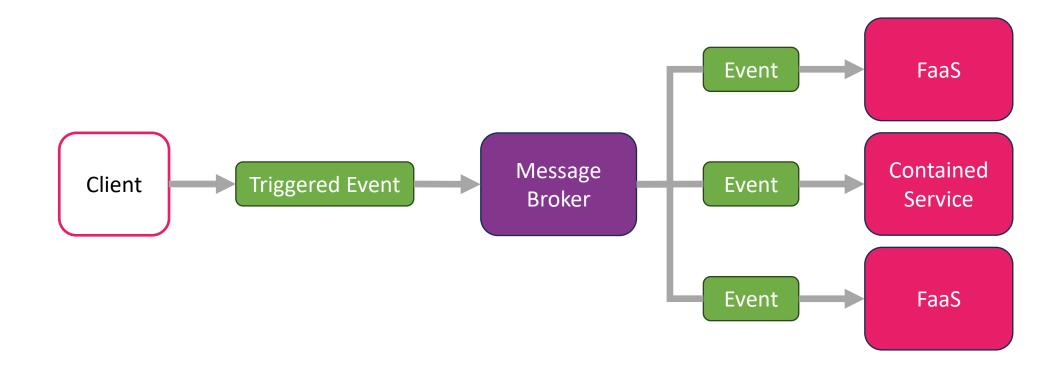


## Decoupled Messaging

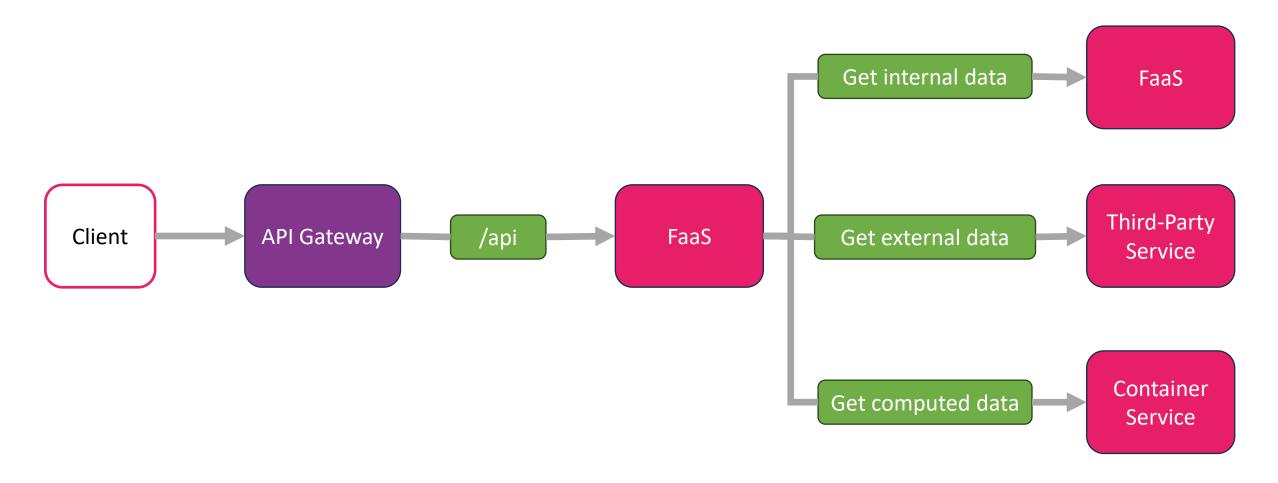




#### Publish/Subscribe

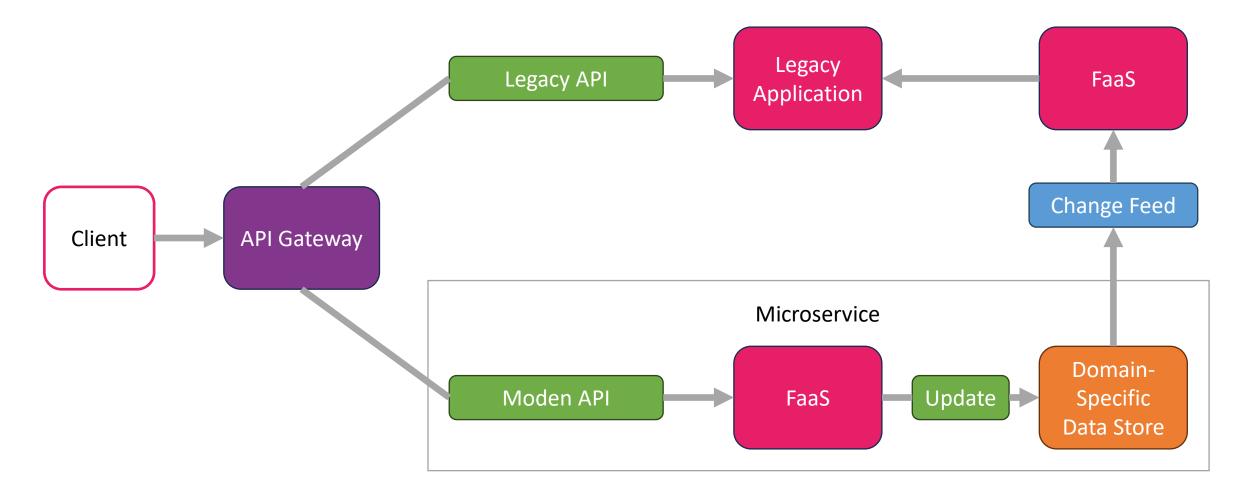


## Aggregation



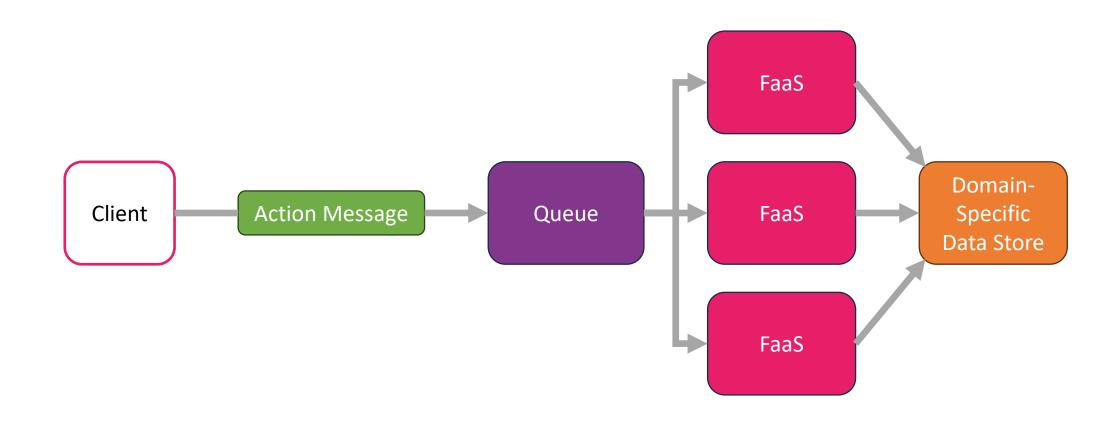


## Strangler



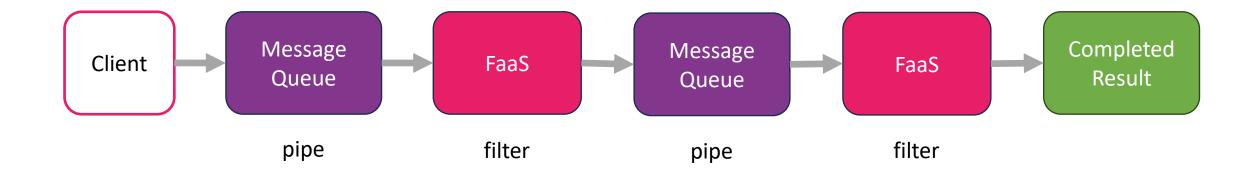


## **Queue-Based Load Leveling**

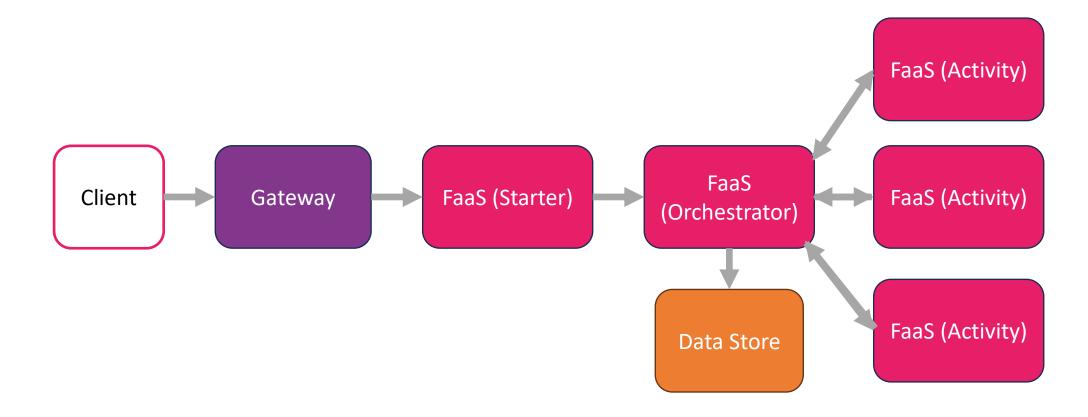




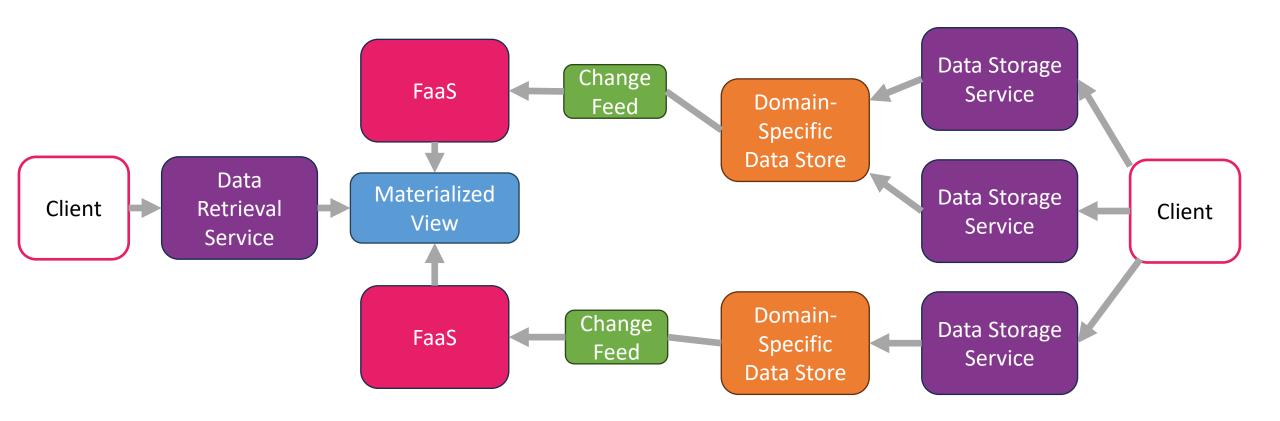
## Pipes and Filters



#### Fan-Out/Fan-In



#### **Materialized Views**



## Serverless Best Practices

Crack the Code to Scalability



#### **Serverless Best Practices**

- Stay focused
- Handle errors
- Observe what's going on
- Test, test, and test again
- Optimize costs
- Engage shields
- Log and trace
- Versioning and Deployment



#### **Serverless Best Practices**

Stay Focused

**Handle Errors** 

Observe What's Going On

Test, Test, and Test Again

**Optimize Costs** 

**Engage Shields** 

Log and Trace

Versioning and Deployment



#### **Thank You**



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