

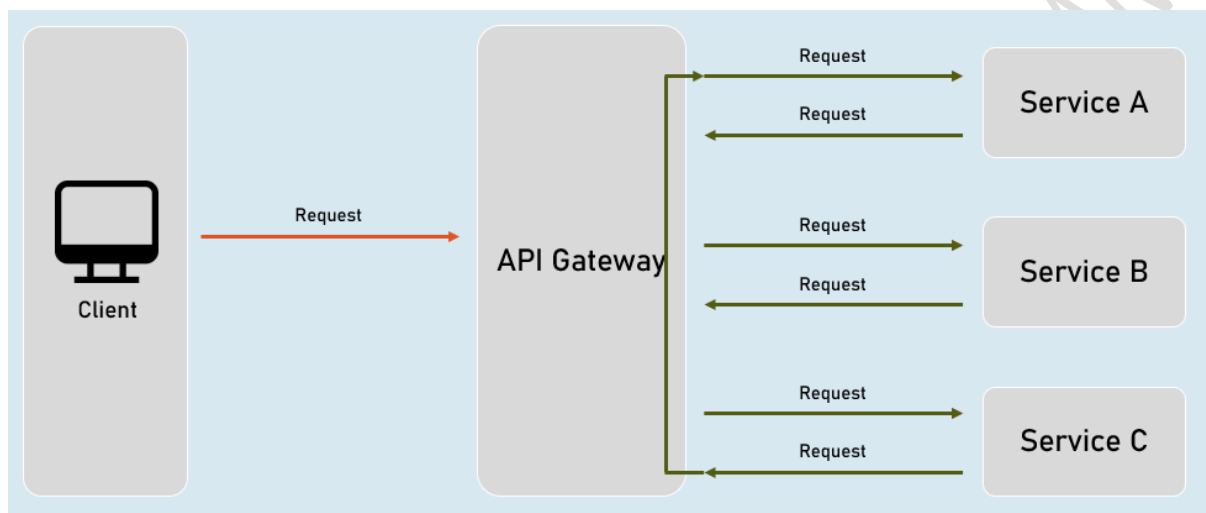
# .NET Core Microservices – True Ultimate Guide

## Section 10 – API Gateway using Ocelot – Cheat Sheet

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### Introduction to API Gateway

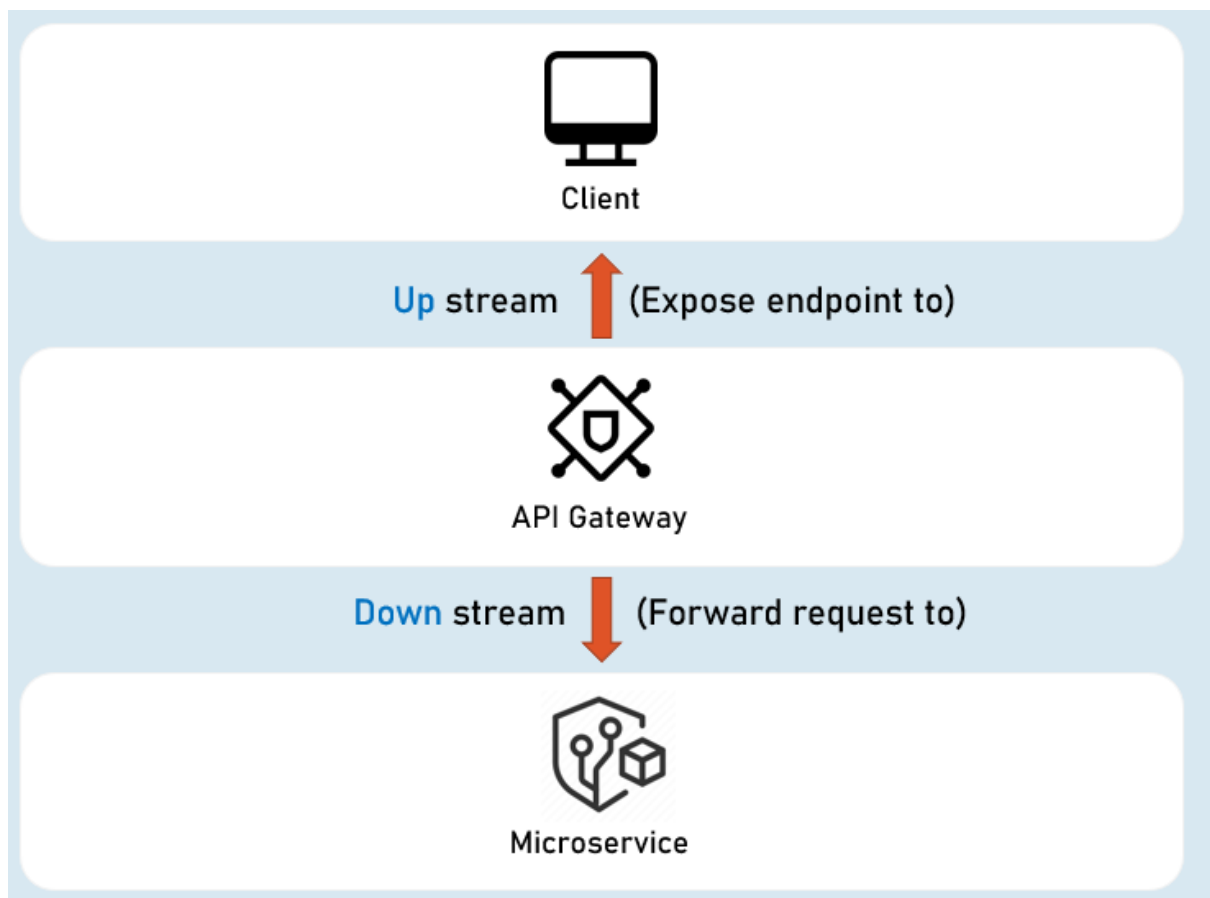
An API gateway is a mediator between clients and microservices and also among microservices that routes all requests to the appropriate microservices.



### Advantages of API Gateway

1. **Simplified Client Interaction:** Provides a single entry point for clients, abstracting the complexity of tracking hosting locations of multiple microservices.
2. **Centralized Security:** Enforces consistent authentication, authorization etc., and avoids individual authentication to each microservice.
3. **Cross-Cutting Concerns:** Centralizes functions like load balancing, logging, monitoring, and request & response transformation, service discovery etc.

## Up and Down Streams in API Gateway



## Microservice Communication with API Gateway

Without API Gateway

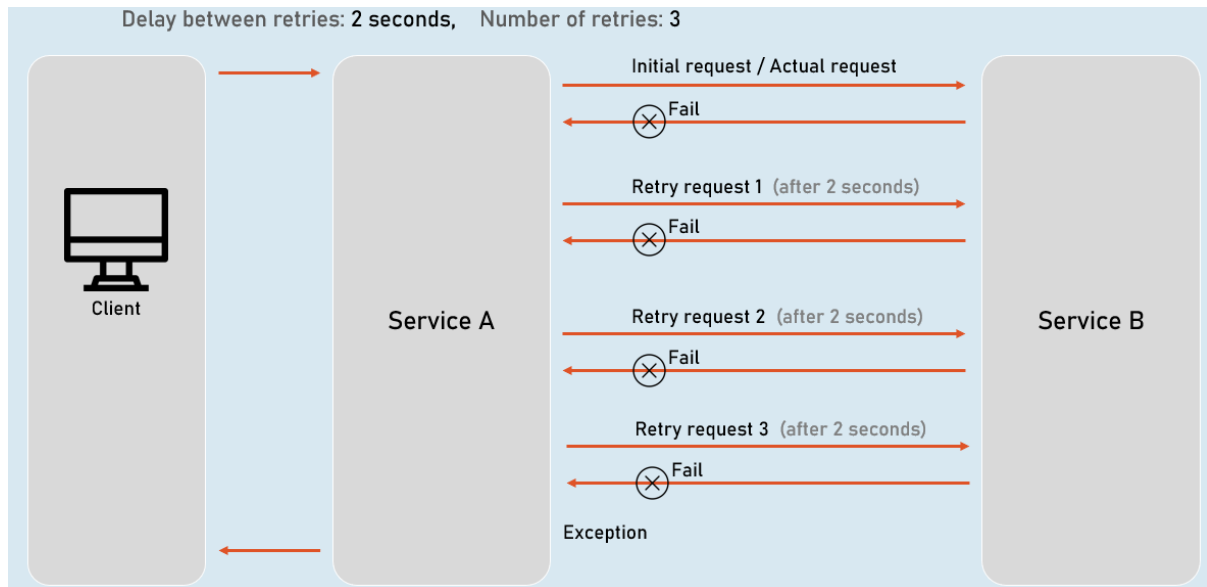


With API Gateway

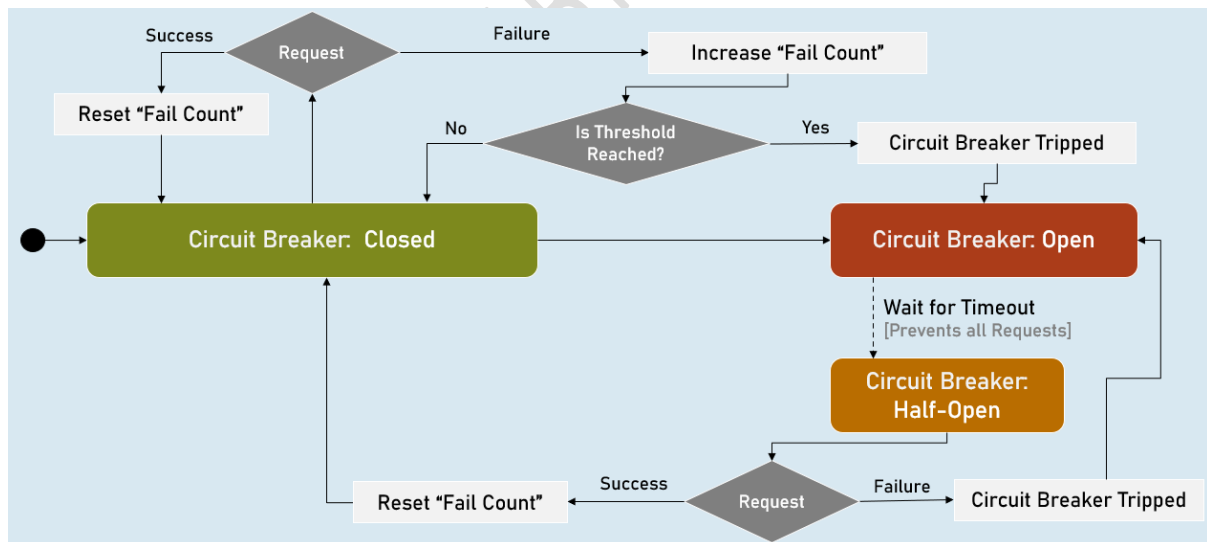


## Polly with Ocelot

### "Retry" policy in Polly

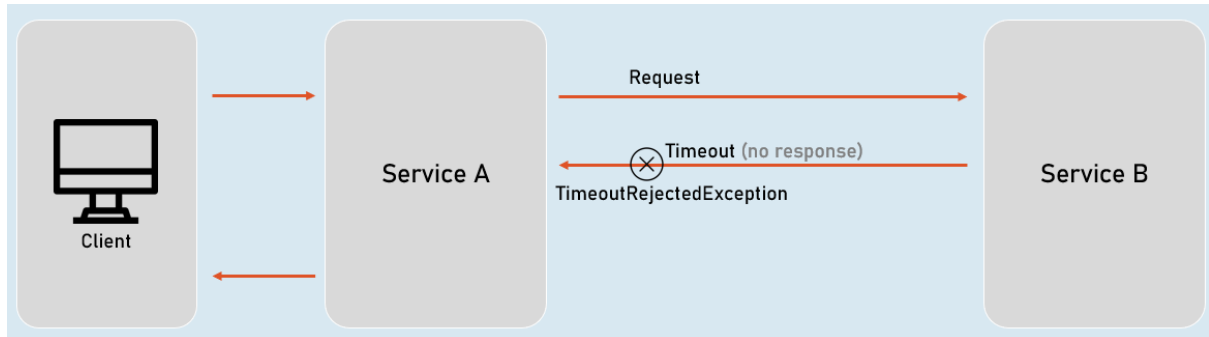


### How Circuit Breaker works?



## Timeout

The timeout policy in Polly sets a time limit for an operation to complete. If the operation exceeds the time limit, the policy triggers a timeout, and the operation is aborted.



## Rate Limiter

