

Agenda

Microservices with ASP.NET Core

- Getting Started with Microservices
- Building Microservices with ASP.NET Core
- API Gateways
- Ocelot API Gateway
- Integrating Ocelot API Gateway
- Testing Microservices Using Postman
- Swagger
- Web API Documentation with Swagger

Development Frameworks



Tools For Building Microservices



Visual Studio



SQL Server



Postman App



Ocelot API Gateway



Swagger



RabbitMQ



Azure Subscription



MassTransit

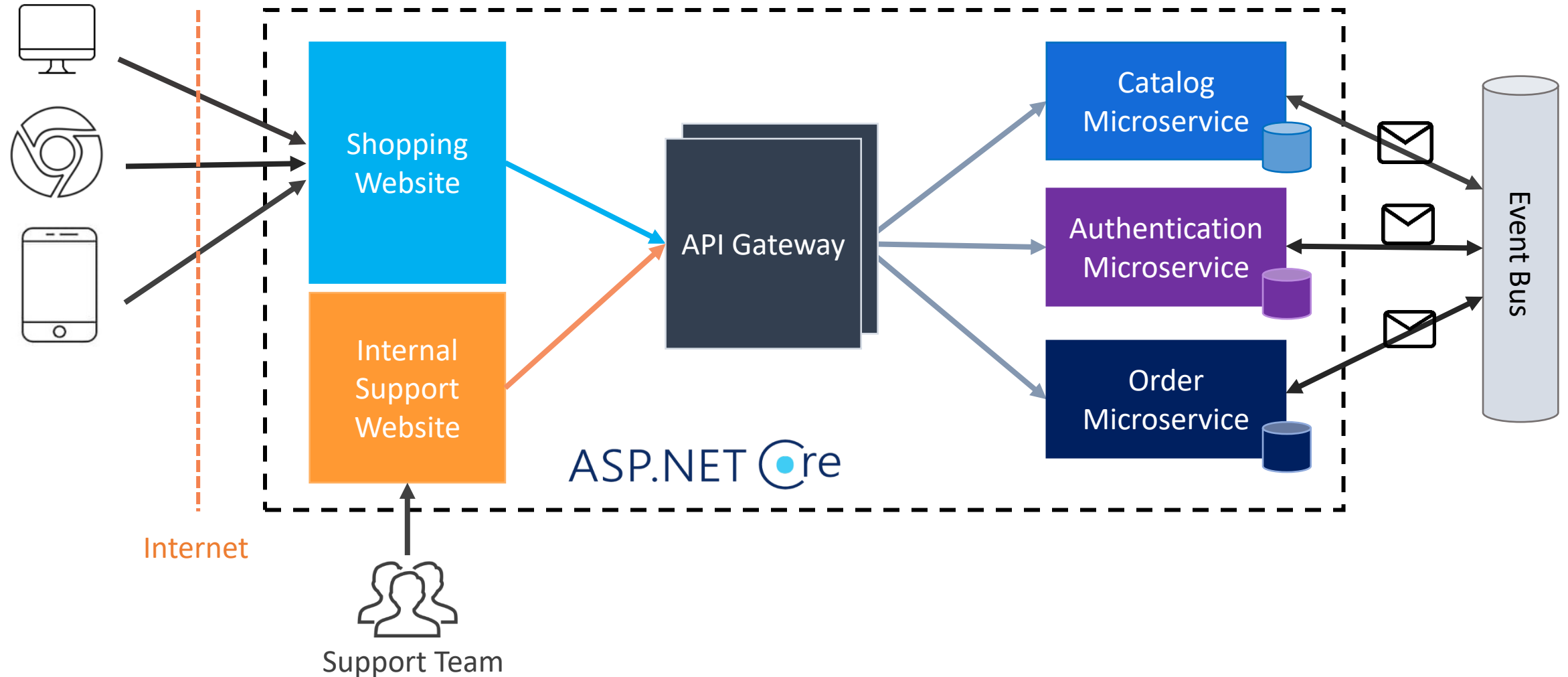


Docker Desktop



Azure AKS

Building Microservices with ASP.NET Core

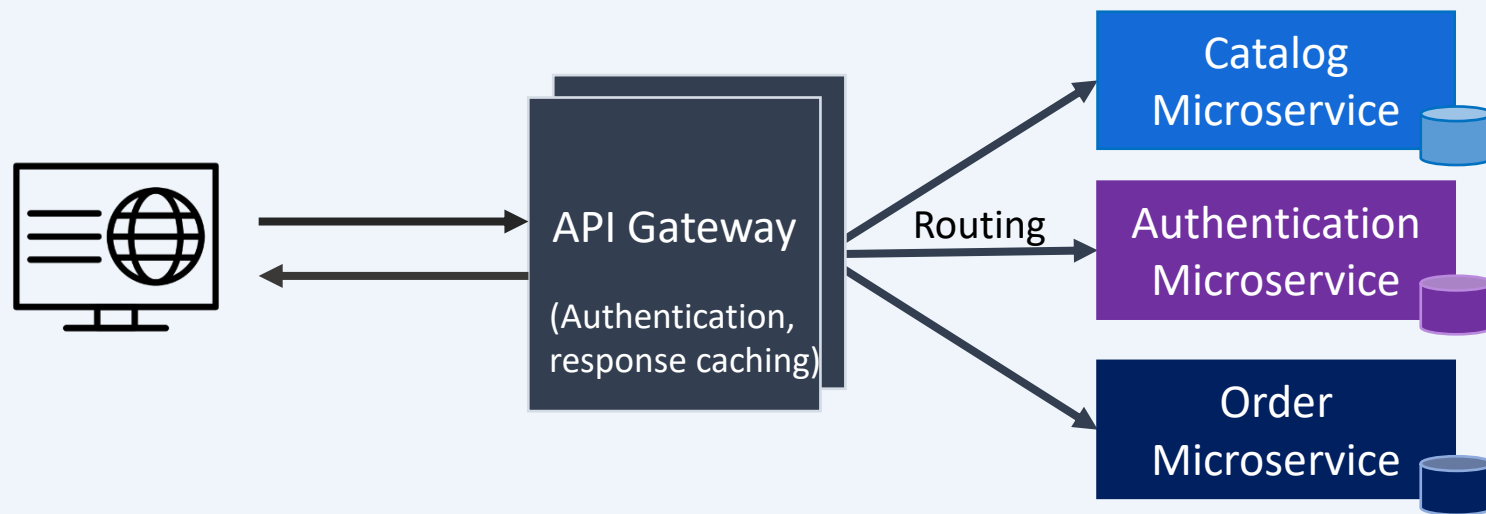


Demo

Creating Backend Microservices

API Gateway

- An API Gateway is a single point of entry for any microservice calls.
- Work as a proxy service to route a request to the backend microservices.
- Aggregate the results to send back to the consumer.
- Offload the authentication/authorization responsibility of the microservice.



Microservices API Gateways



Ocelot API Gateway



NGINX Ingress Controller



Azure API Management



AWS API Management



Free: Open Source



Cloud Managed

Ocelot API Gateway



- An open-source API Gateway for the .NET Platform
- Lightweight and run on the platform that supports ASP.NET Core
- Provides all the necessary features of an API Gateway
- Used by Microsoft itself for their projects

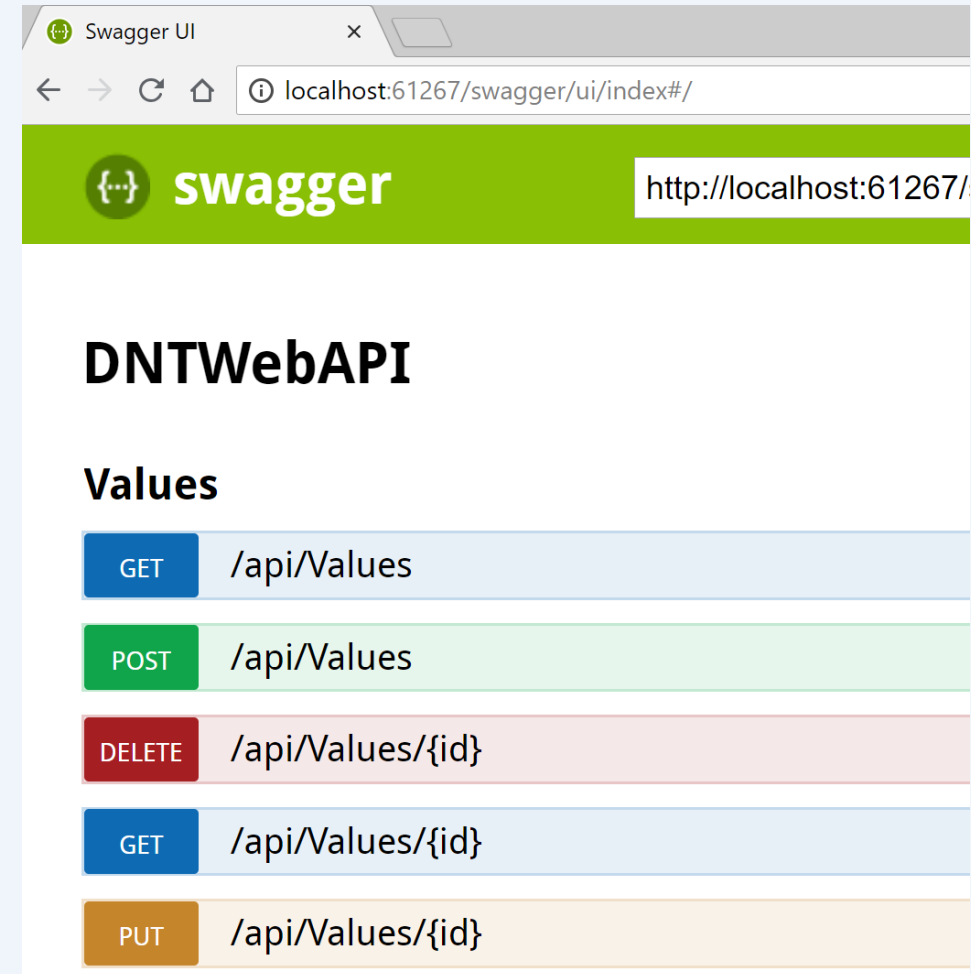
Ocelot API Gateway Features

- Traffic Routing
- Expose Unified endPoint
- API Composition
- Caching
- Authentication
- Authorization
- Logging
- Load balancing
- Service Discovery

Swagger



- Free and open-source framework
- Define a standard, language-agnostic interface to a REST API
- Help you to design, build, document, and consume REST APIs
- Make API discovery easier



Components of a Microservice Architecture

- Business Microservices
- API Gateway
- Discovery Server
- Configuration Server
- Identity Management Server
- Authentication Server
- Logs Aggregator Server
- Logs Analyzer
- Admin Server
- Databases
- Message Queues

