Accessing a Microservices Infrastructure

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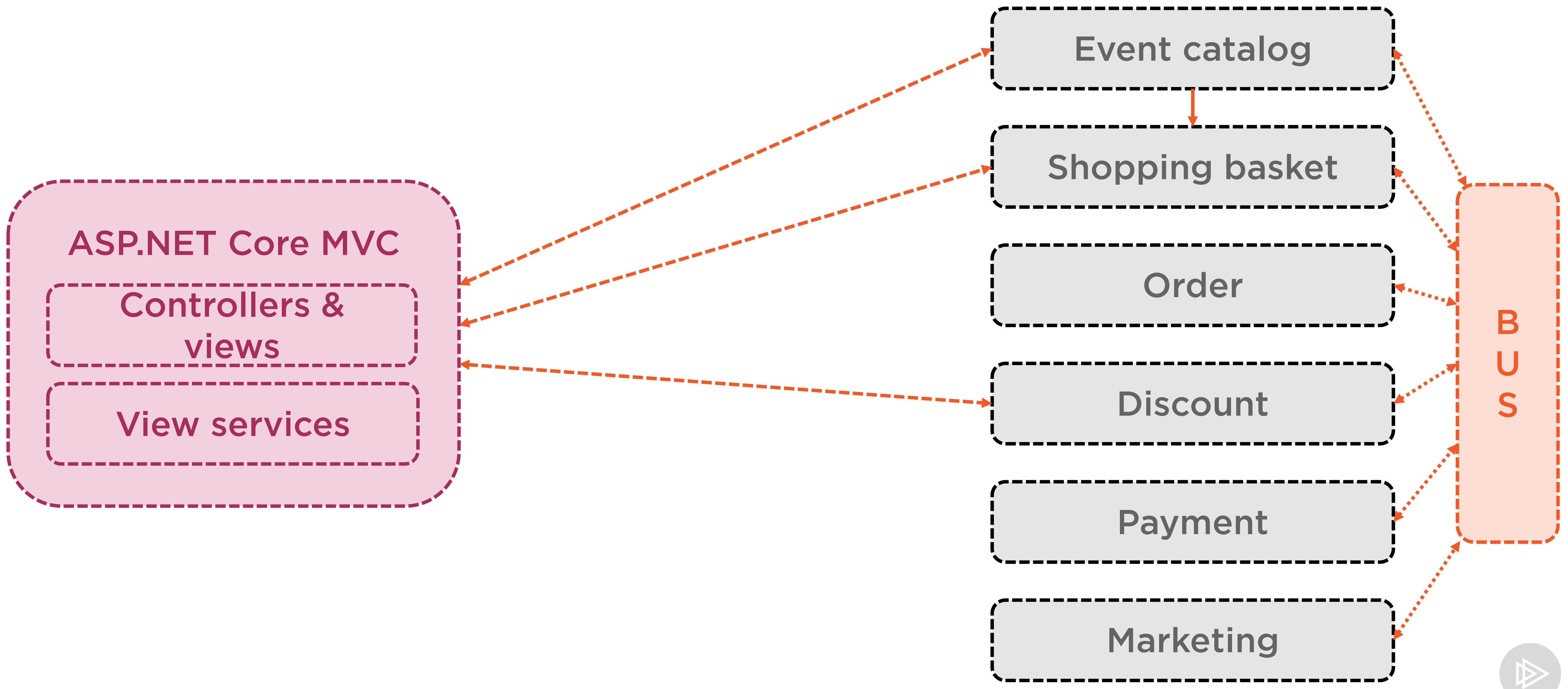
Overview

From client-to-microservice to a gateway

Adding different clients and gateways

From Client-to-service to a Gateway

What We Have so Far



Client-to-microservice Communication

Smaller applications

Server-side

Knowledge about the services

Demo

Exploring the MVC interaction with the microservices

Client-to-microservice Communication

What if we want multiple applications?

What if we want to use different protocols?

What if we want to share code?

Disadvantages of Client-to-microservice

Tight coupling

Security

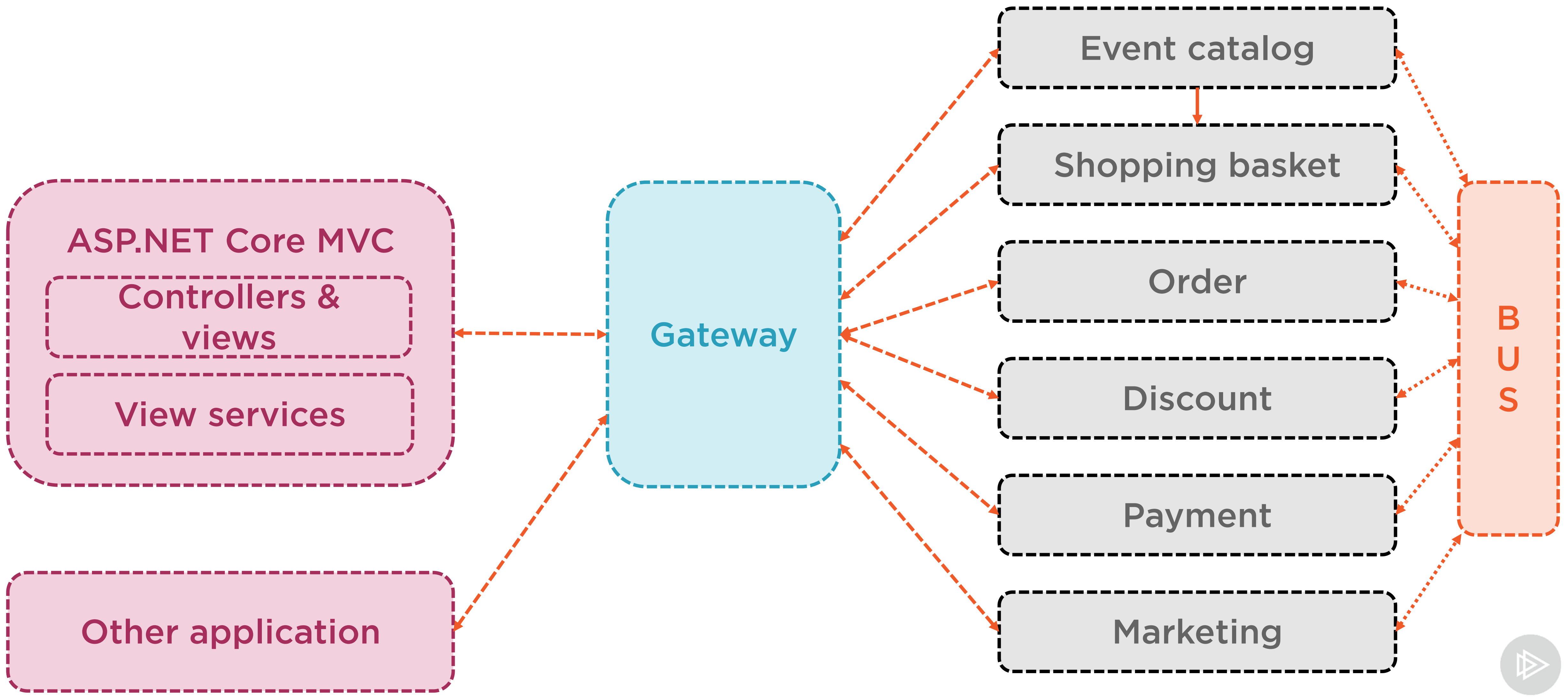
Evolving the microservices

Roundtrips

Adding a gateway

- Single point of entry to set of services
- Shared functionality
- Larger applications
- Backend-for-frontend

Adding a Gateway



Don’t create a new monolith!

Gateway service can become bloated.

Often, multiple gateways are recommended.

Aggregation via the Gateway

Aggregate data for multiple microservices

Response can be combination

Less requests between client and services

Disadvantages of the Gateway

Again... coupling

Extra layer

Development bottleneck

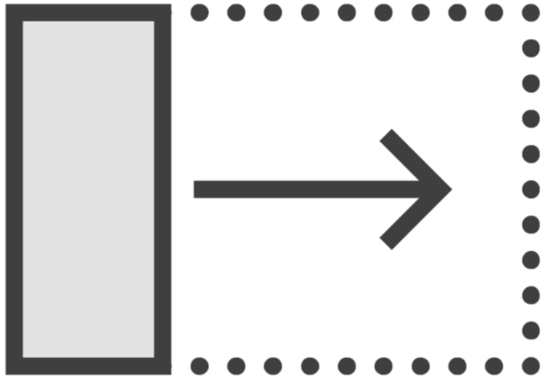
Scaling

Demo

Introducing a gateway

Re-routing the MVC app to the gateway

Adding Different Clients and Gateways

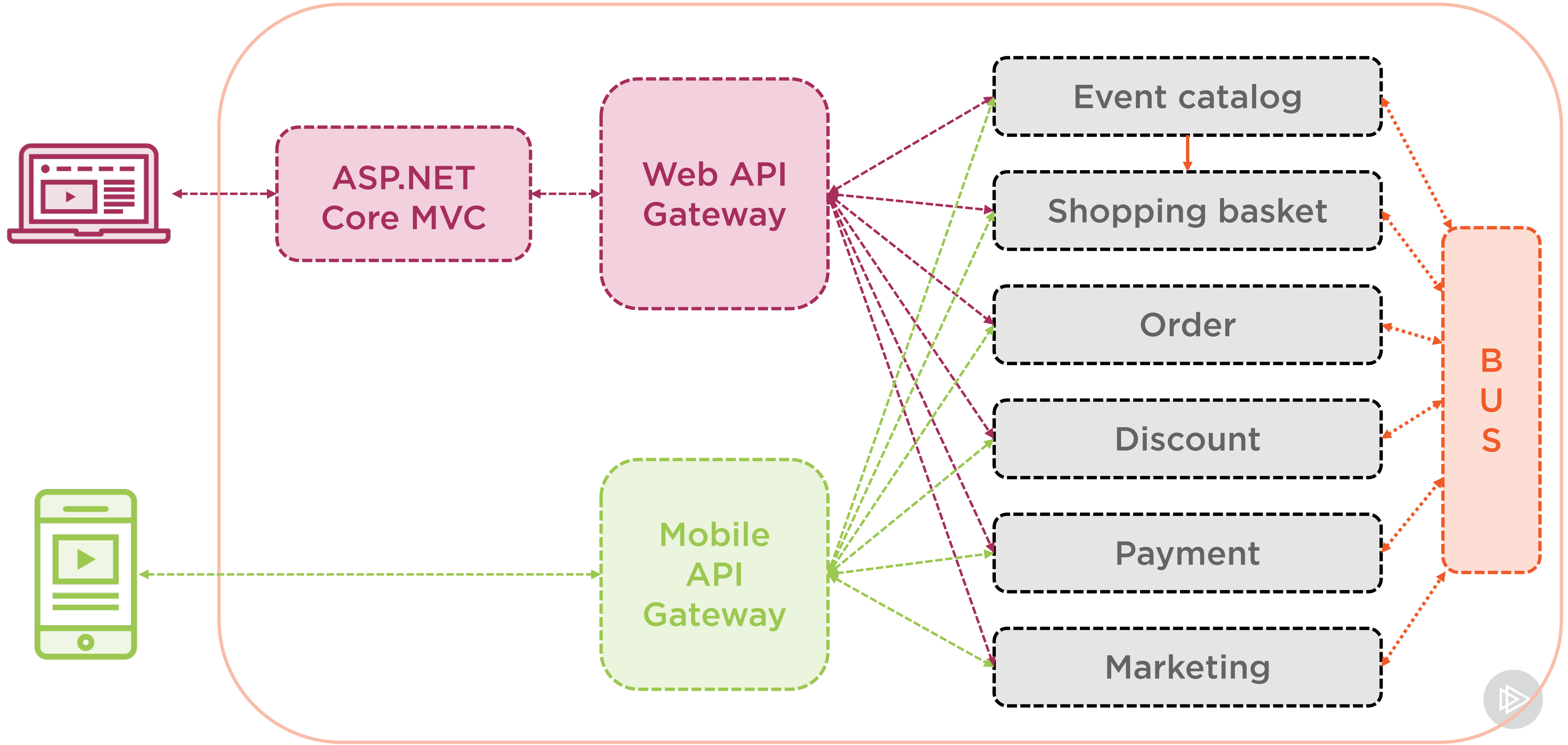


What if we want to bring in a mobile app?

What if we want to expose our APIs to a third party?

What if we want to add a Blazor app?

Adding Different BFFs



Demo

Bringing in a second gateway

Adding the mobile app

Summary

Gateways are used to expose the microservice façade

Gateways should never become a monolith again

Different frontends will benefit from their own gateway

The ASP.NET Core Microservices Path

- ASP.NET Core Microservices: Getting Started
- Microservices Communication in ASP.NET Core (this course)
- Implementing a data management strategy for an ASP.NET Core Microservices Architecture
- Securing Microservices in ASP.NET Core
- Versioning and Evolving Microservices in ASP.NET Core
- Deploying ASP.NET Core microservices using Kubernetes and AKS
- Implementing cross-cutting concerns for ASP.NET Core microservices
- Strategies for Microservice Scalability and Availability in ASP.NET Core

Congratulations
on finishing this course!