



Getting on the Bus
An Introduction to NServiceBus

Sam Martindale

Introduction



Sam Martindale
Architecting Innovation

14+ Years Development Experience

Co-Founder & Managing Partner, AI

NServiceBus adopter since v1.x



Introduction

Architecting Innovation

Founded in 2012

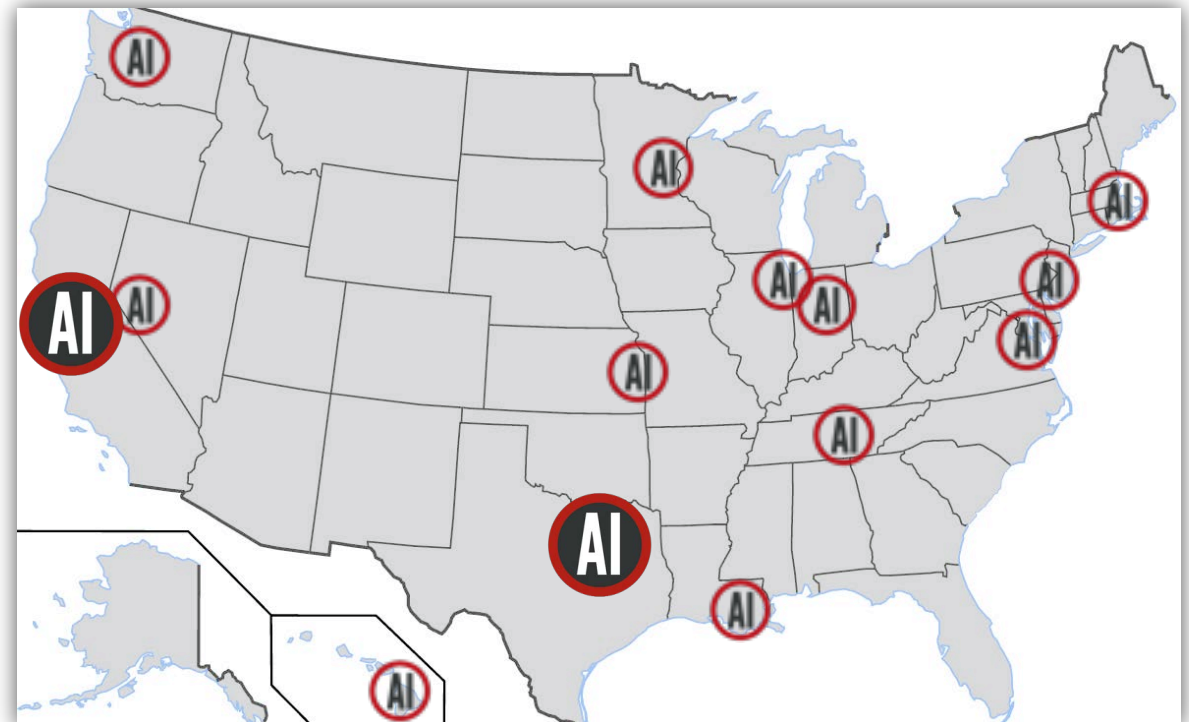
Consulting Services

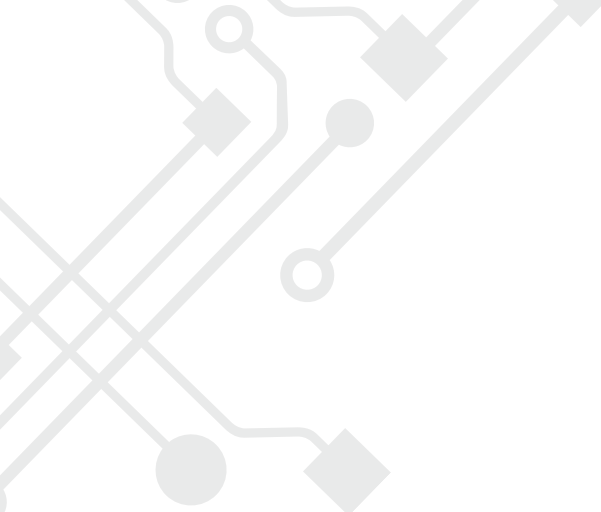
Distributed Systems Architecture

Business Intelligence

Software Development

UX





Distributed Systems



What is SOA Anyways?

Service-oriented architecture (SOA) is a software design and software architecture design pattern based on distinct pieces of software providing application functionality as services to other applications.

What is **not** SOA?

Web Services (alone)

RPC

“Services” that aren’t shared



Systems are not Applications

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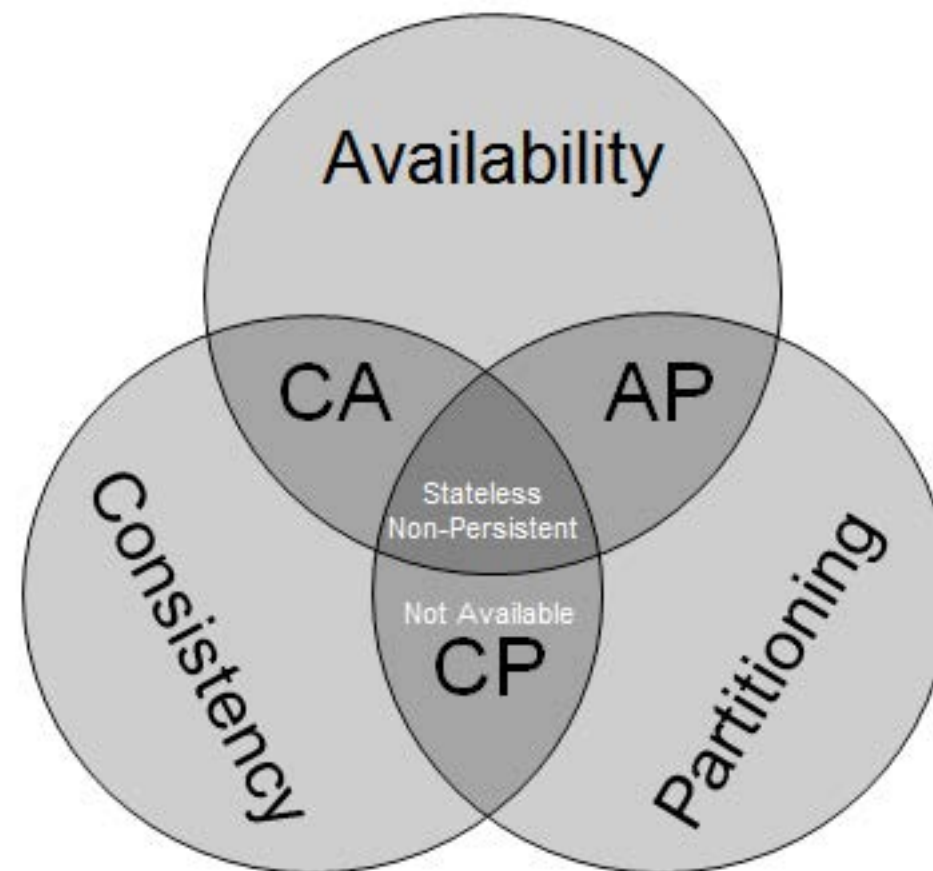
Place your order

The Fallacies

- The network is reliable.
- Latency is zero.
- Bandwidth is infinite.
- The network is secure.
- Topology doesn't change.
- There is one administrator.
- Transport cost is zero.
- The network is homogeneous.



CAP Theorem



First mentioned by Eric Brewer in 2000 and was proven 2 years later.

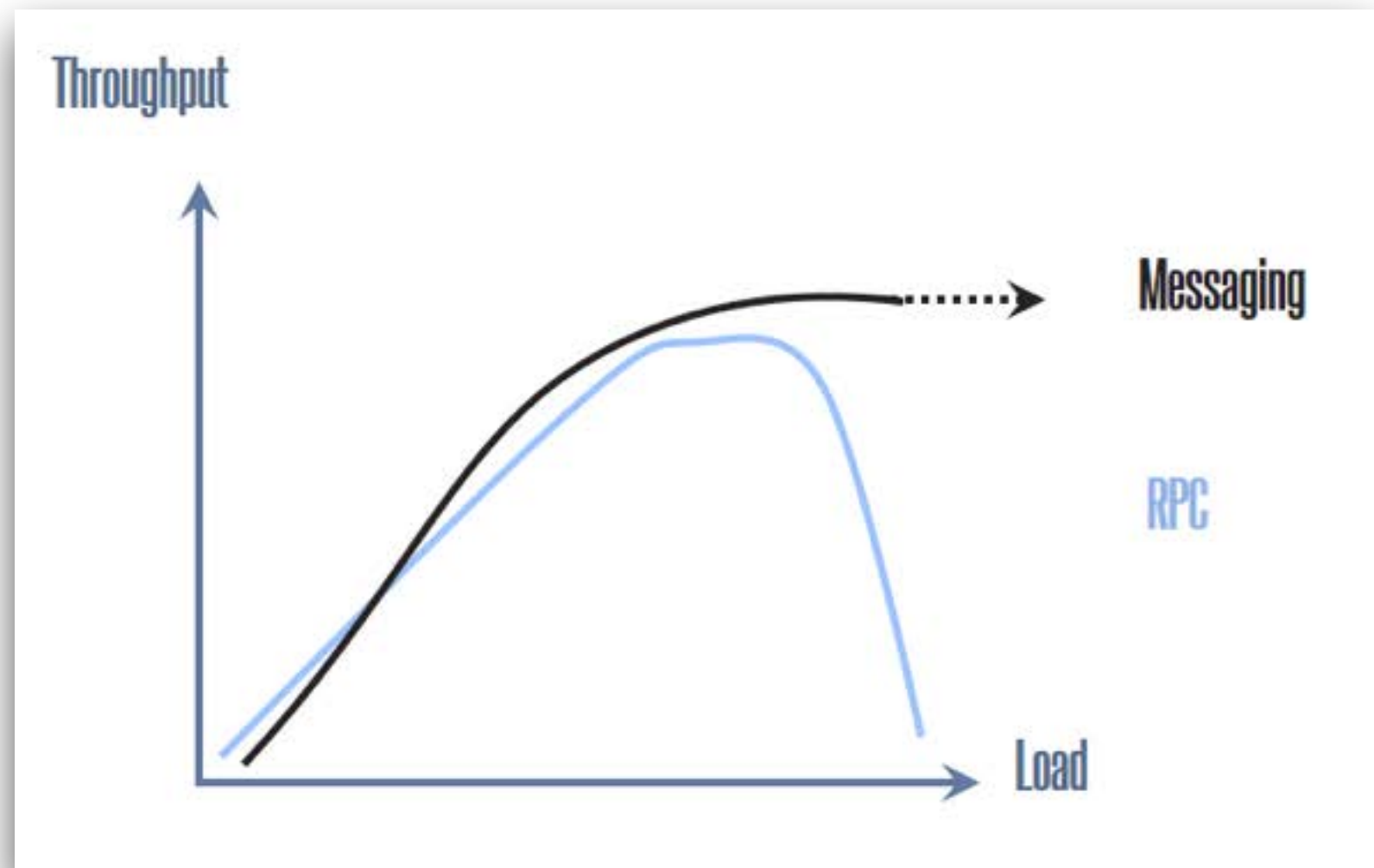
Messaging

Reduced Coupling

Store and Forward

Asynchronous

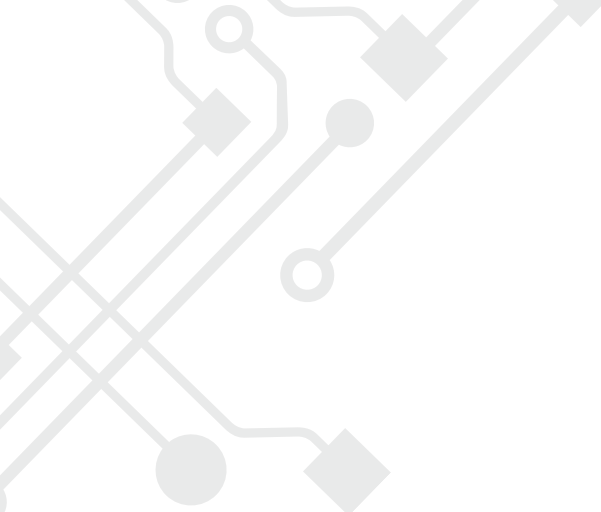
Fire-and-Forget



Event Driven Architecture

The other side of the SOA coin
Events in EDA, not commands
Informational
Complex Event Processing





What is NServiceBus?



Overview

Developed by Udi Dahan, 2006

Grew out of work in the Aerospace sector

Intended to make messaging easier, durable

Commands & Events as first class citizens



Benefits

Reliability



© Leslie Jones/Boston Public Library

Scalability

Benefits



Extensibility



Maintainability



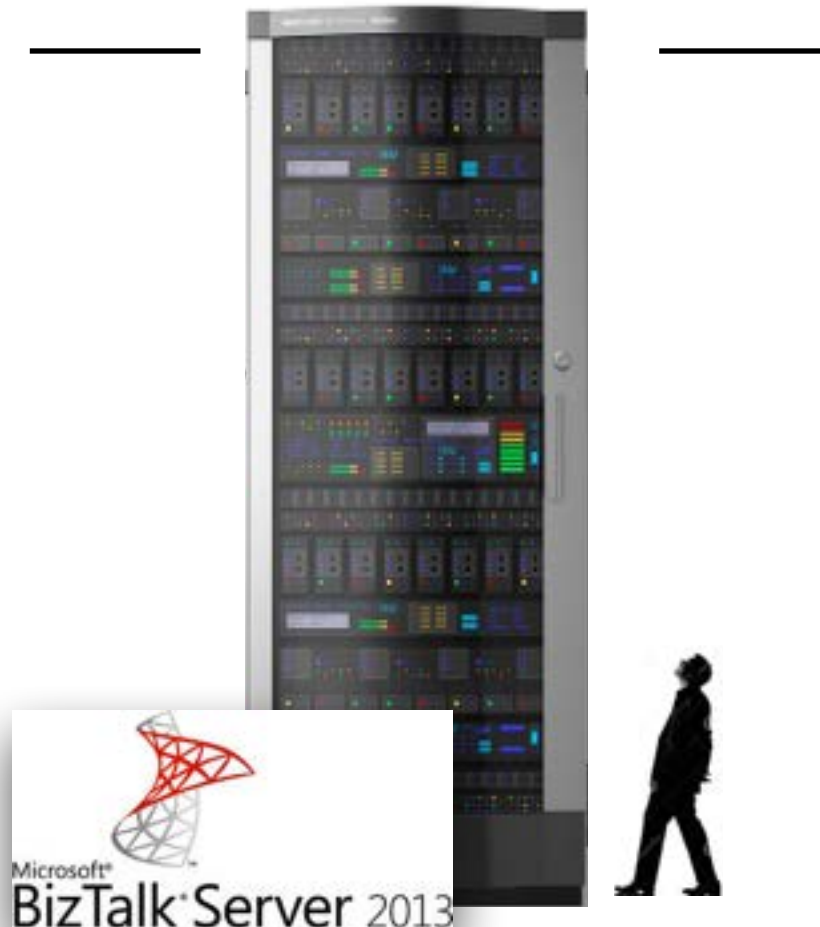
Bus v Broker

Broker

Cross Sell Service

Product Service

Pricing Service

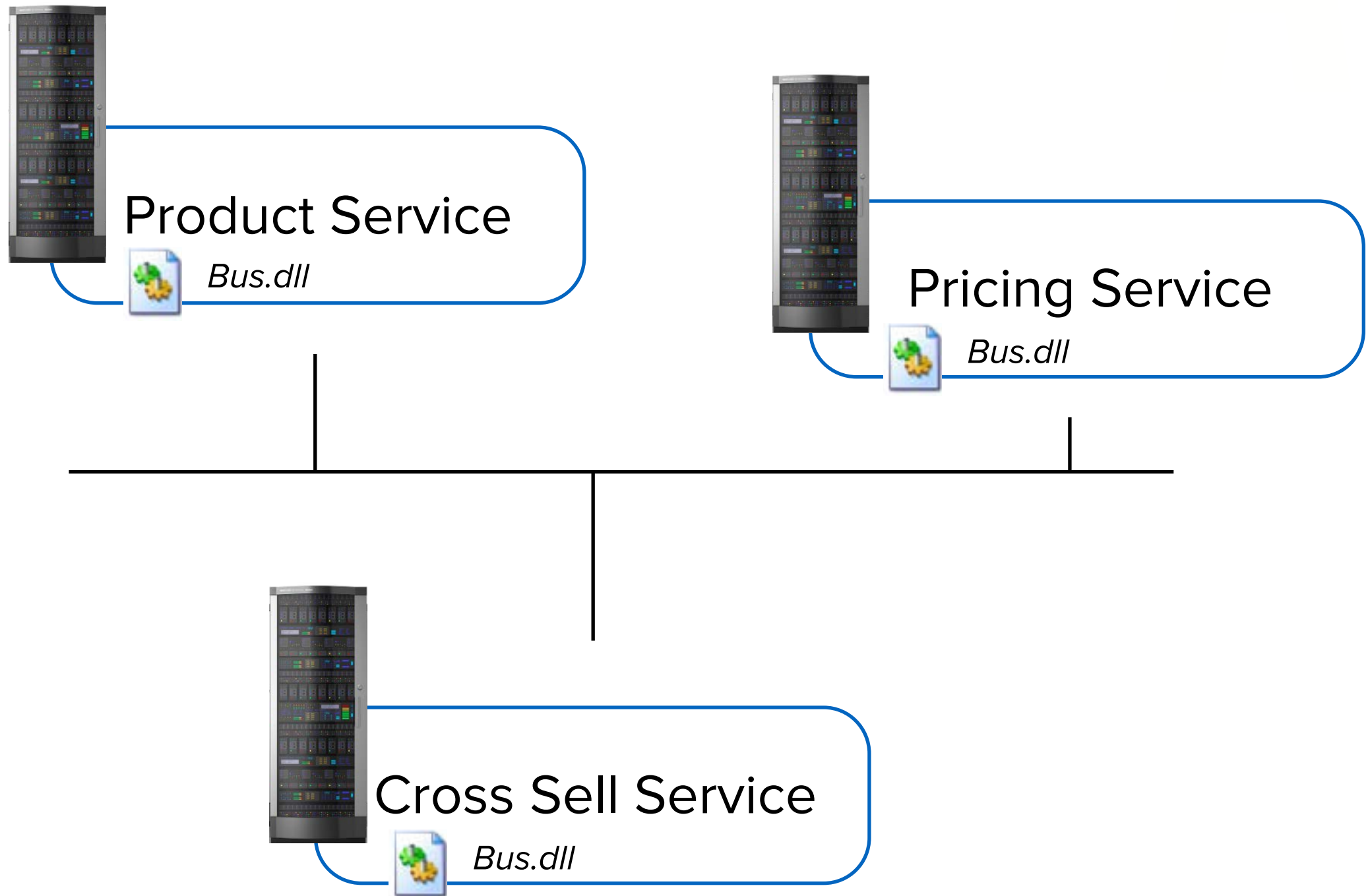


Microsoft
BizTalk Server 2013



Bus v Broker

BUS



Who Uses this Thing?



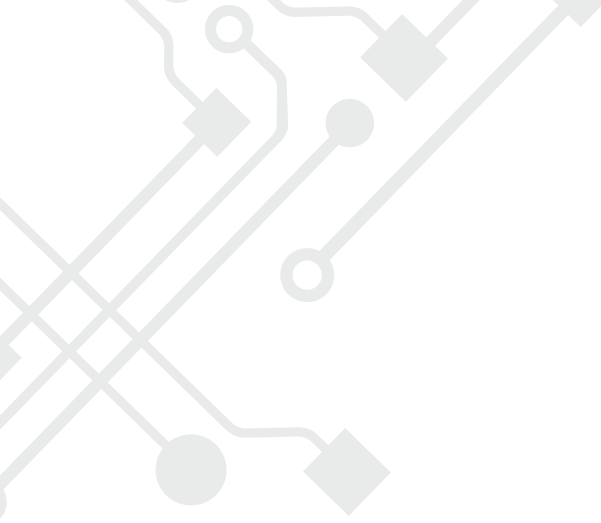


Let's Build Something

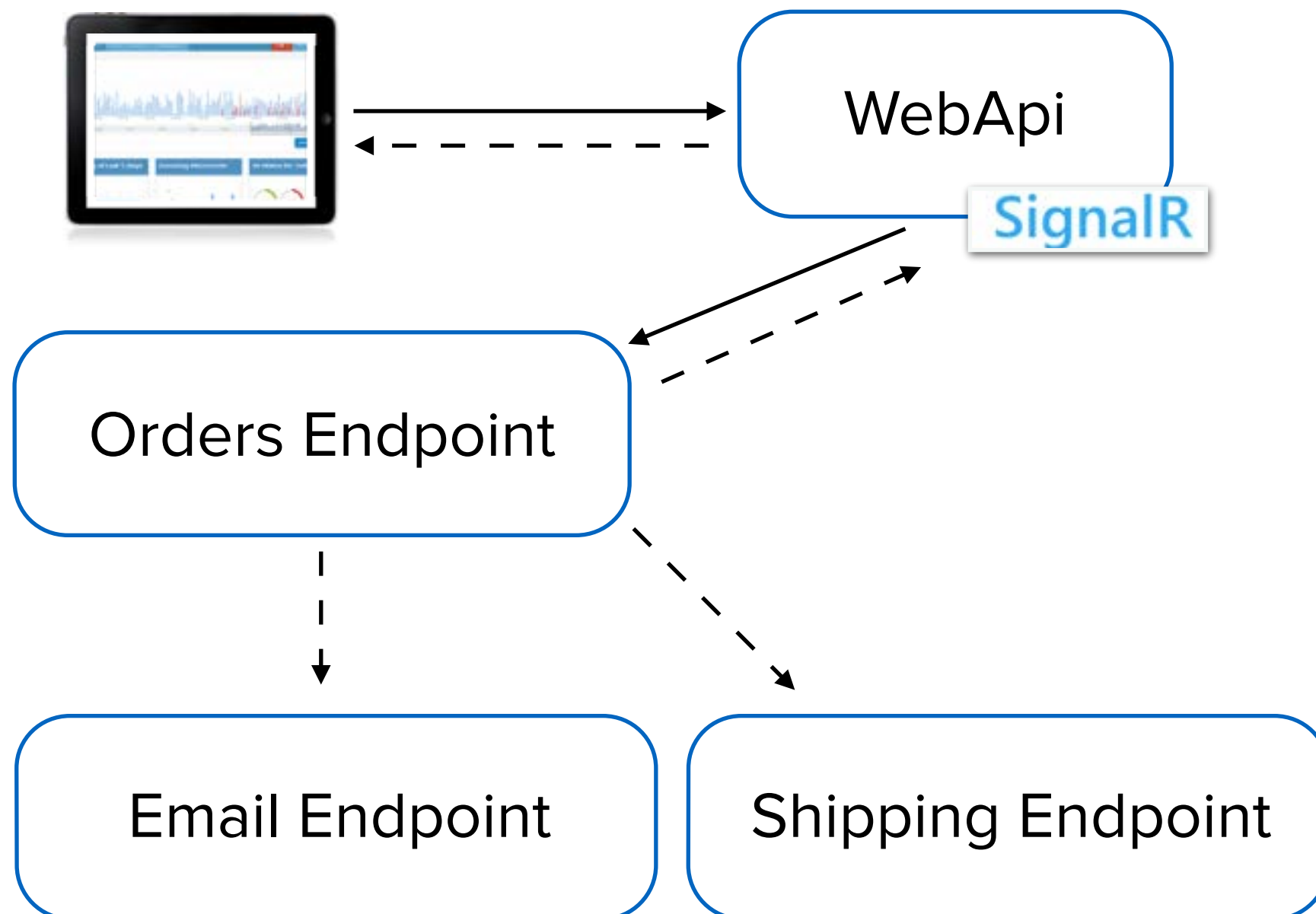


eCommerce site

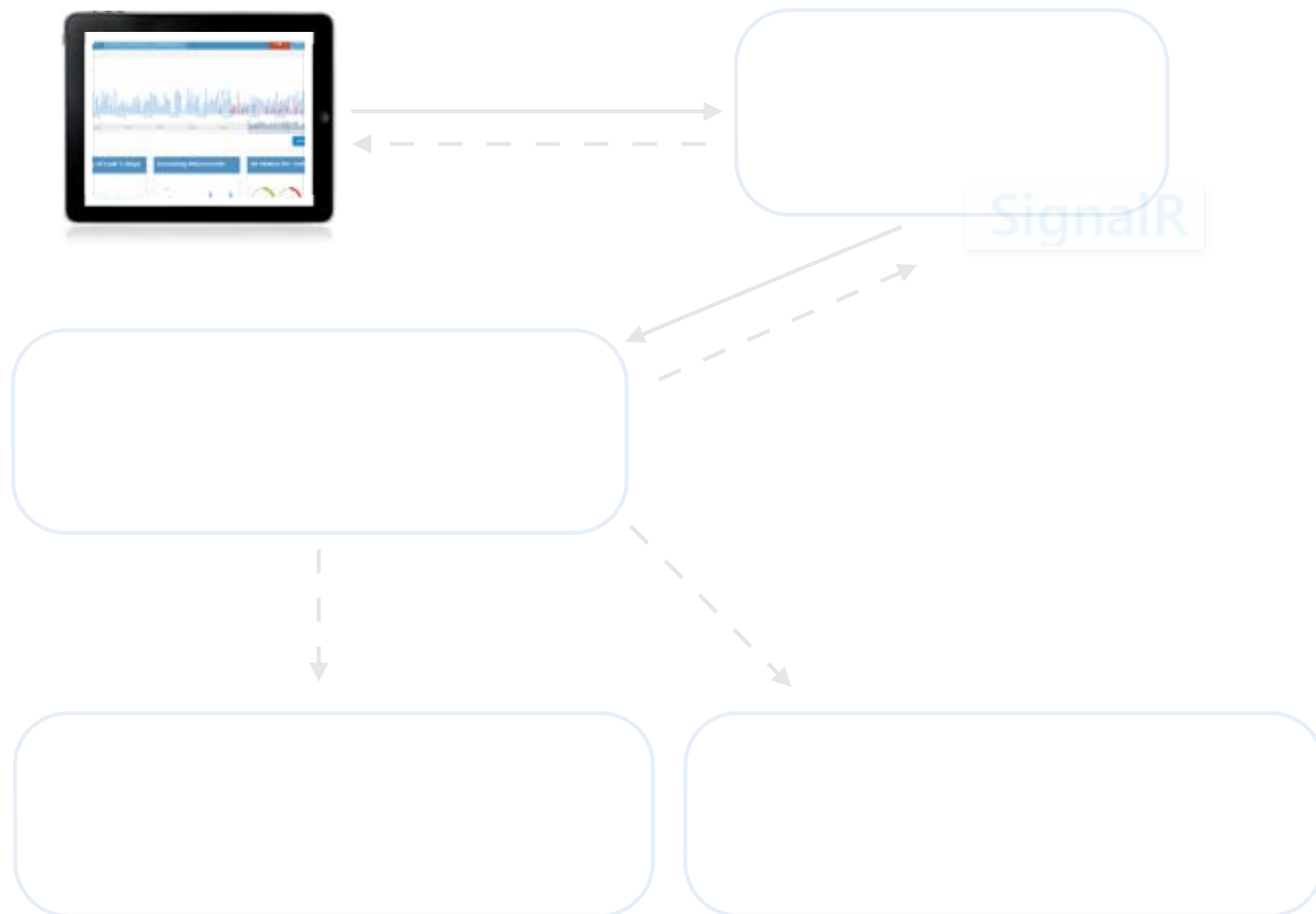
- Take an Order online
- Schedule Shipping for Order
- Send confirmation email



Demo System



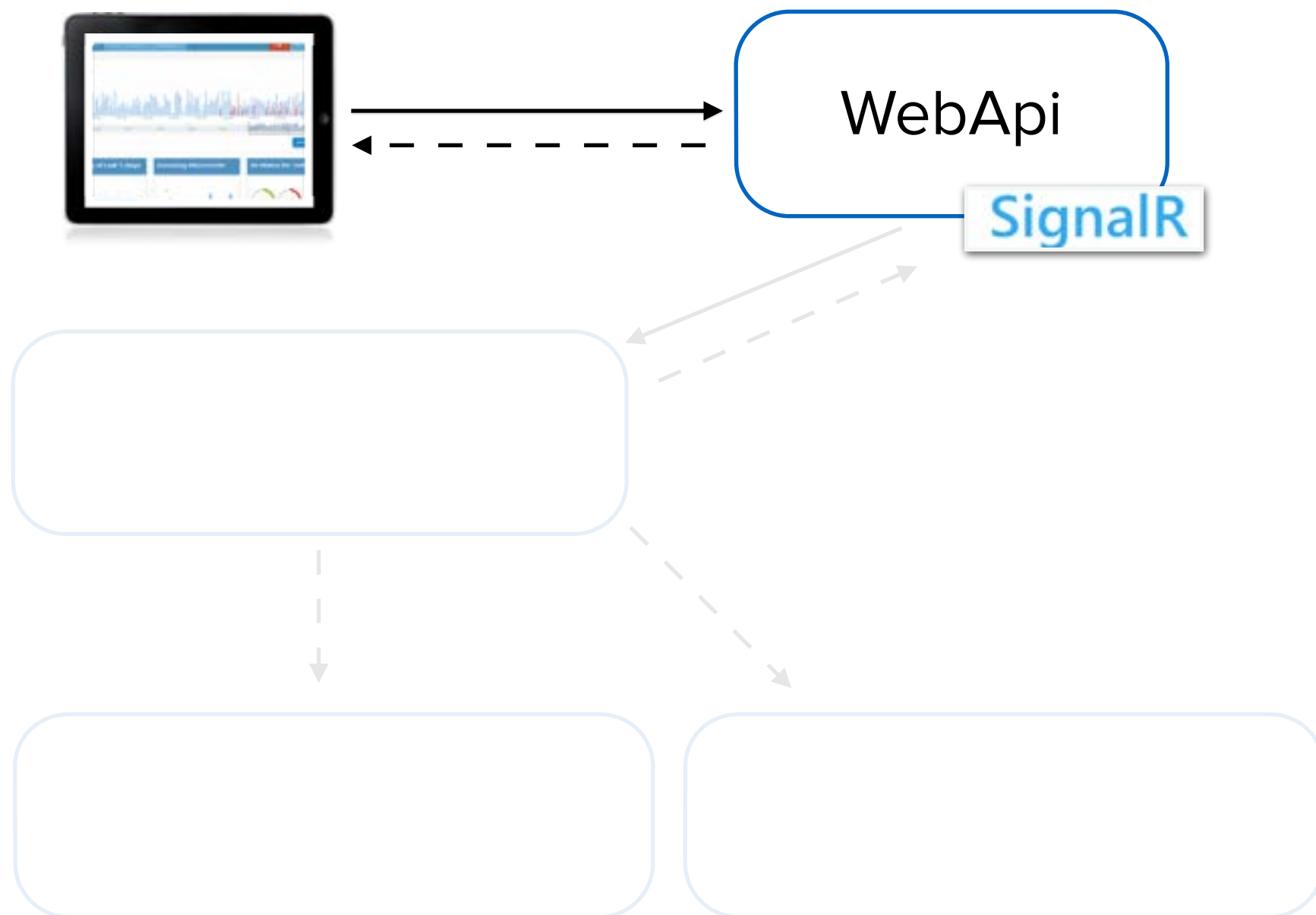
The Web Application



Components

WebApi

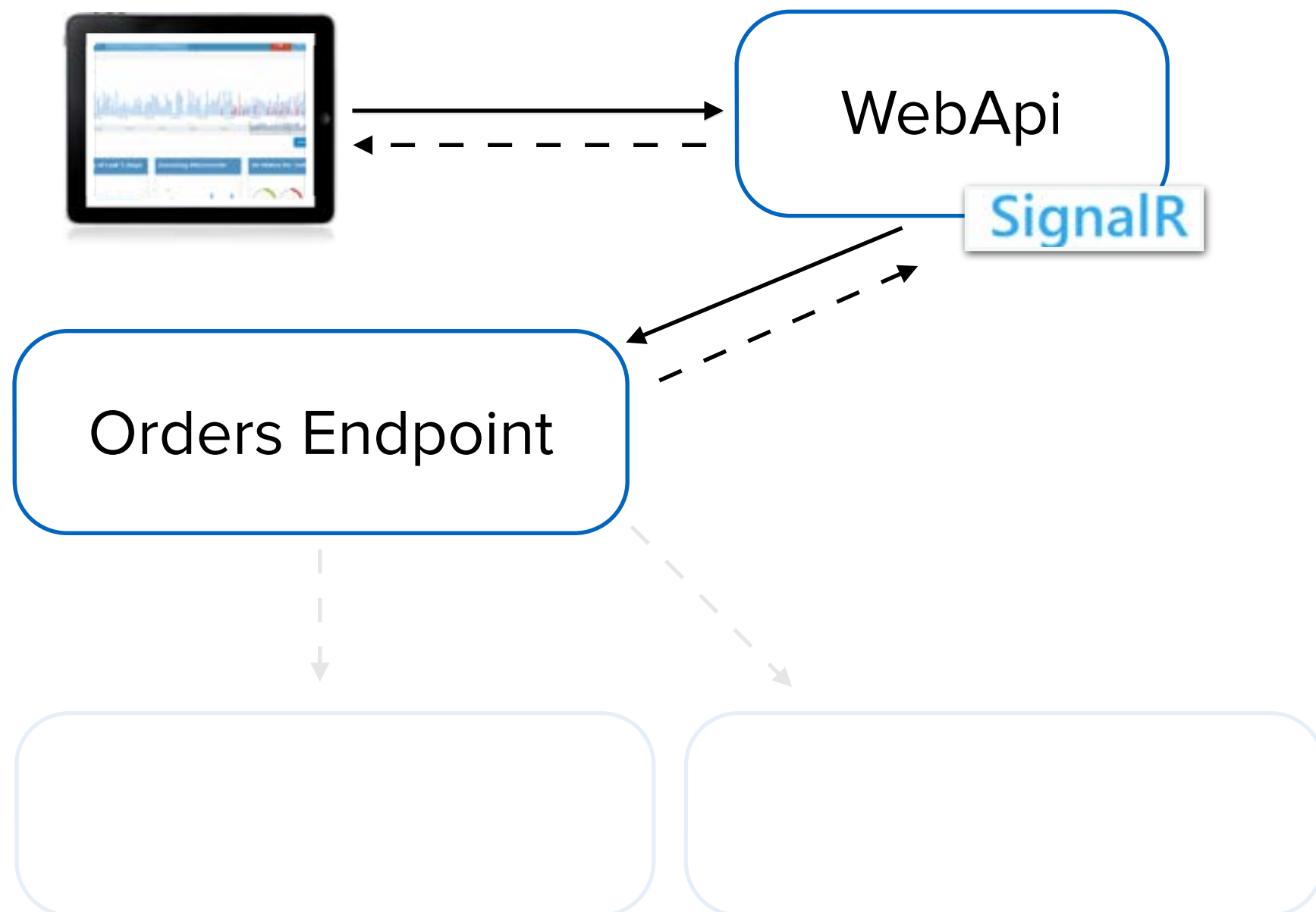
Exposes our backend services to the front end web and mobile applications



Components

Orders Endpoint

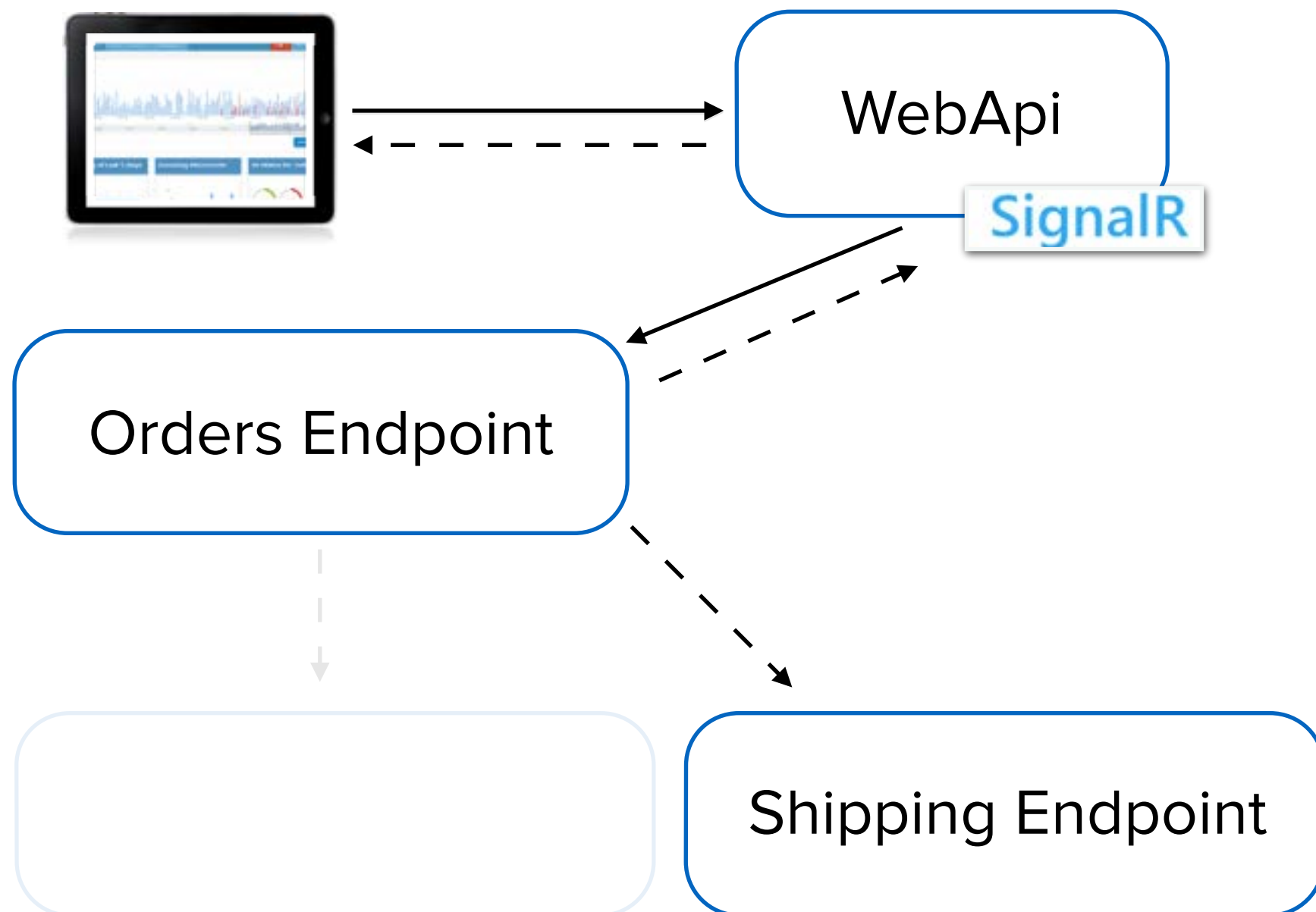
Responsible for placing the order in the database, and processing payment



Components

Shipping Endpoint

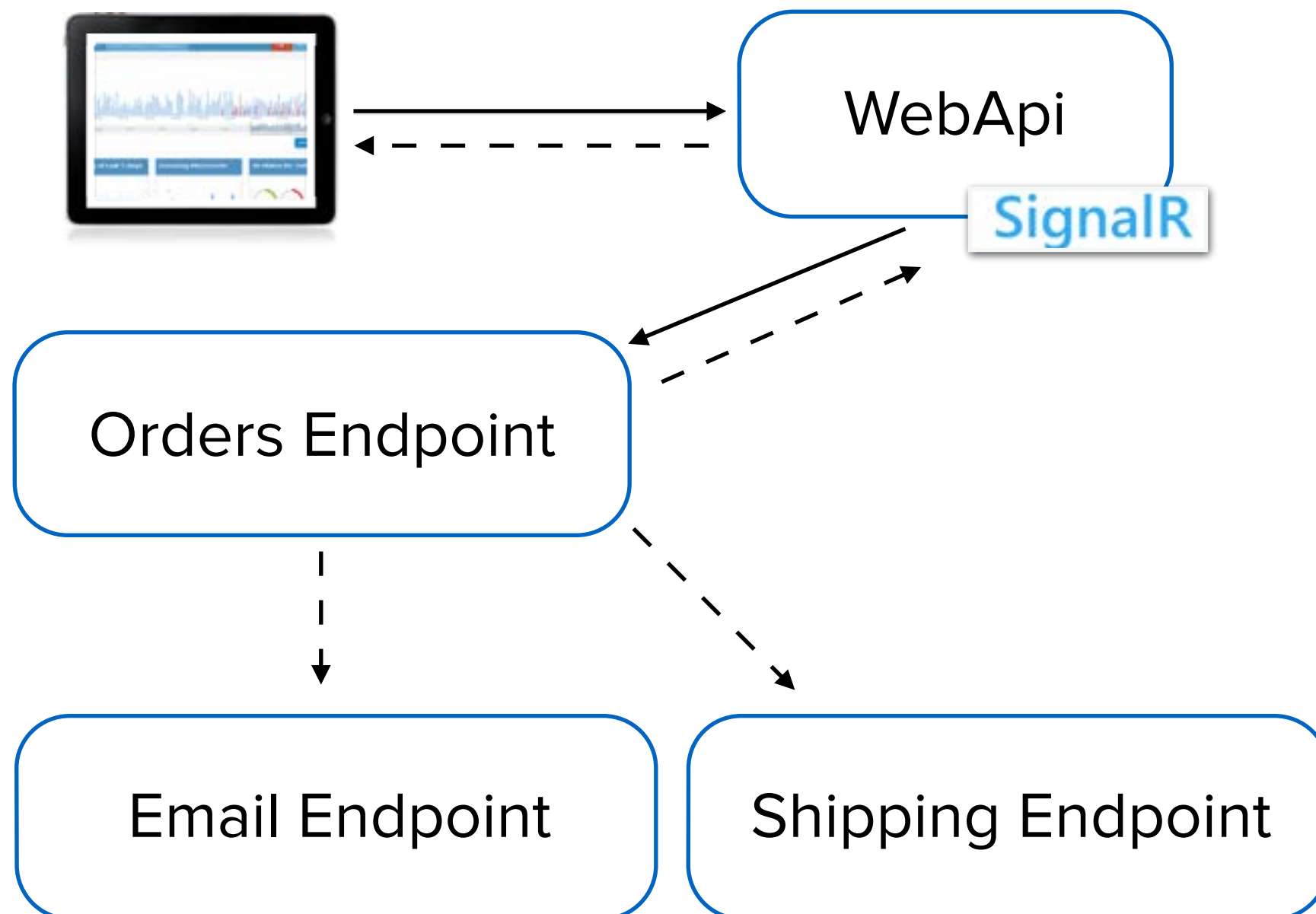
Responsible for scheduling the shipping of the order to the customer

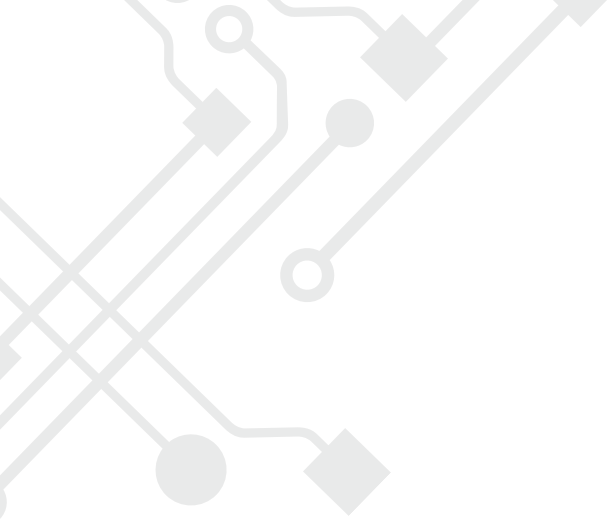


Components

Email Endpoint

Responsible for sending a confirmation and thank you email to the customer after the order has been placed





Demo



Thank You

