How to Centralize Access to Microservices Using an API Gateway
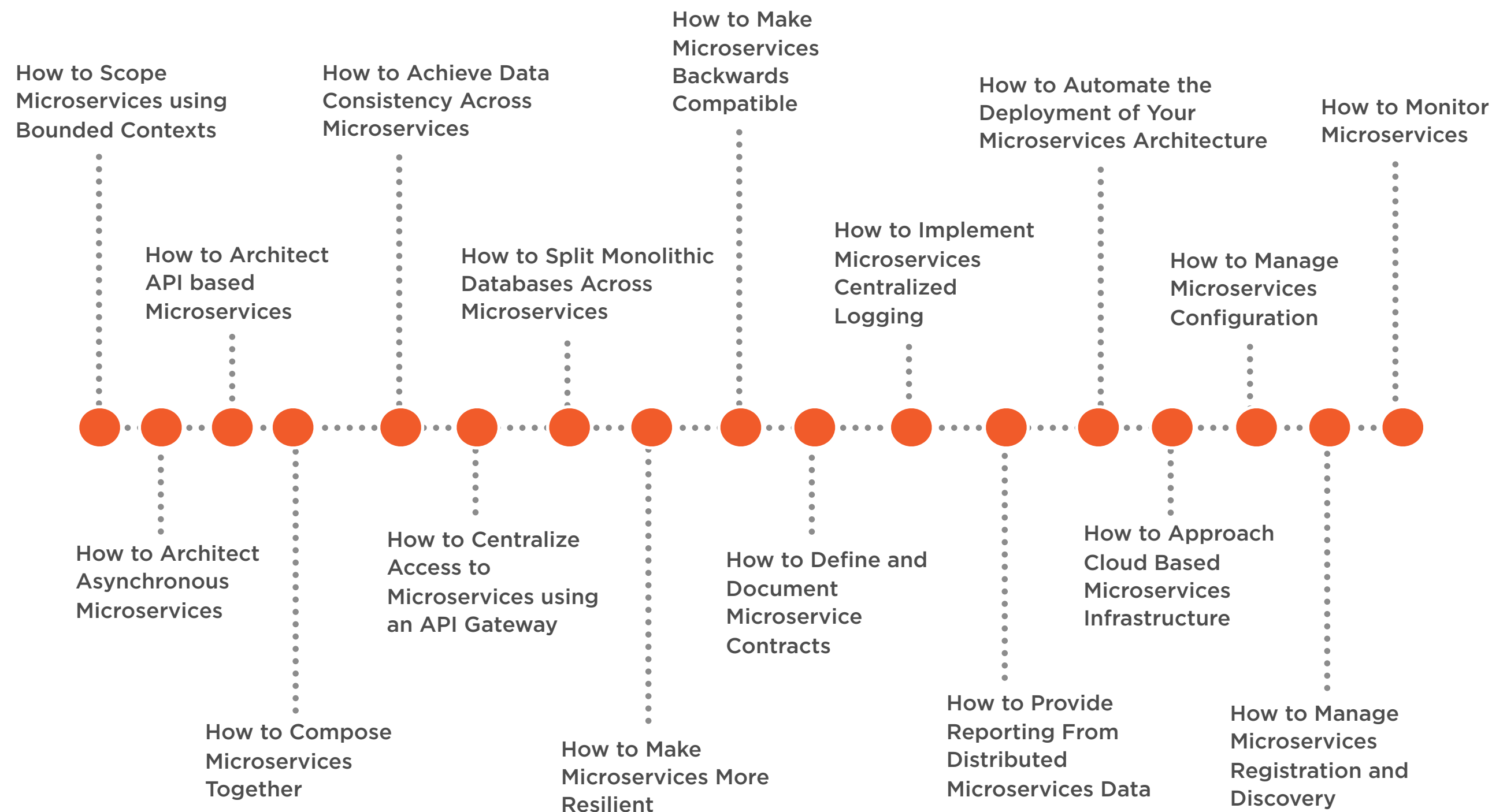
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Microservices Architectural Design Patterns Playbook

How to Scope
Microservices using
Bounded Contexts

How to Achieve Data
Consistency Across
Microservices

How to Make
Microservices
Backwards
Compatible

How to Automate the
Deployment of Your
Microservices Architecture

How to Monitor
Microservices

How to Architect
API based
Microservices

How to Split Monolithic
Databases Across
Microservices

How to Implement
Microservices
Centralized
Logging

How to Manage
Microservices
Configuration

How to Architect
Asynchronous
Microservices

How to Centralize
Access to
Microservices using
an API Gateway

How to Define and
Document
Microservice
Contracts

How to Approach
Cloud Based
Microservices
Infrastructure

How to Compose
Microservices
Together

How to Make
Microservices More
Resilient

How to Provide
Reporting From
Distributed
Microservices Data

How to Manage
Microservices
Registration and
Discovery

Microservices Architectural Design Patterns Playbook
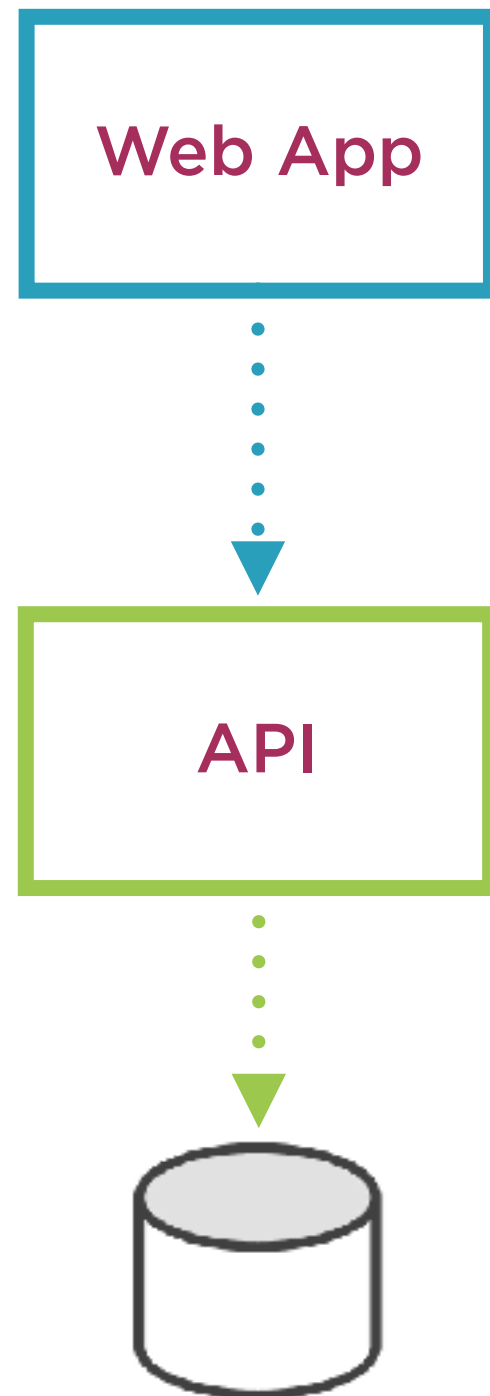
Overview

Introduction

API Gateway

Kong API Gateway

Introduction

Centralizing access to microservices
- API Gateway

Why?
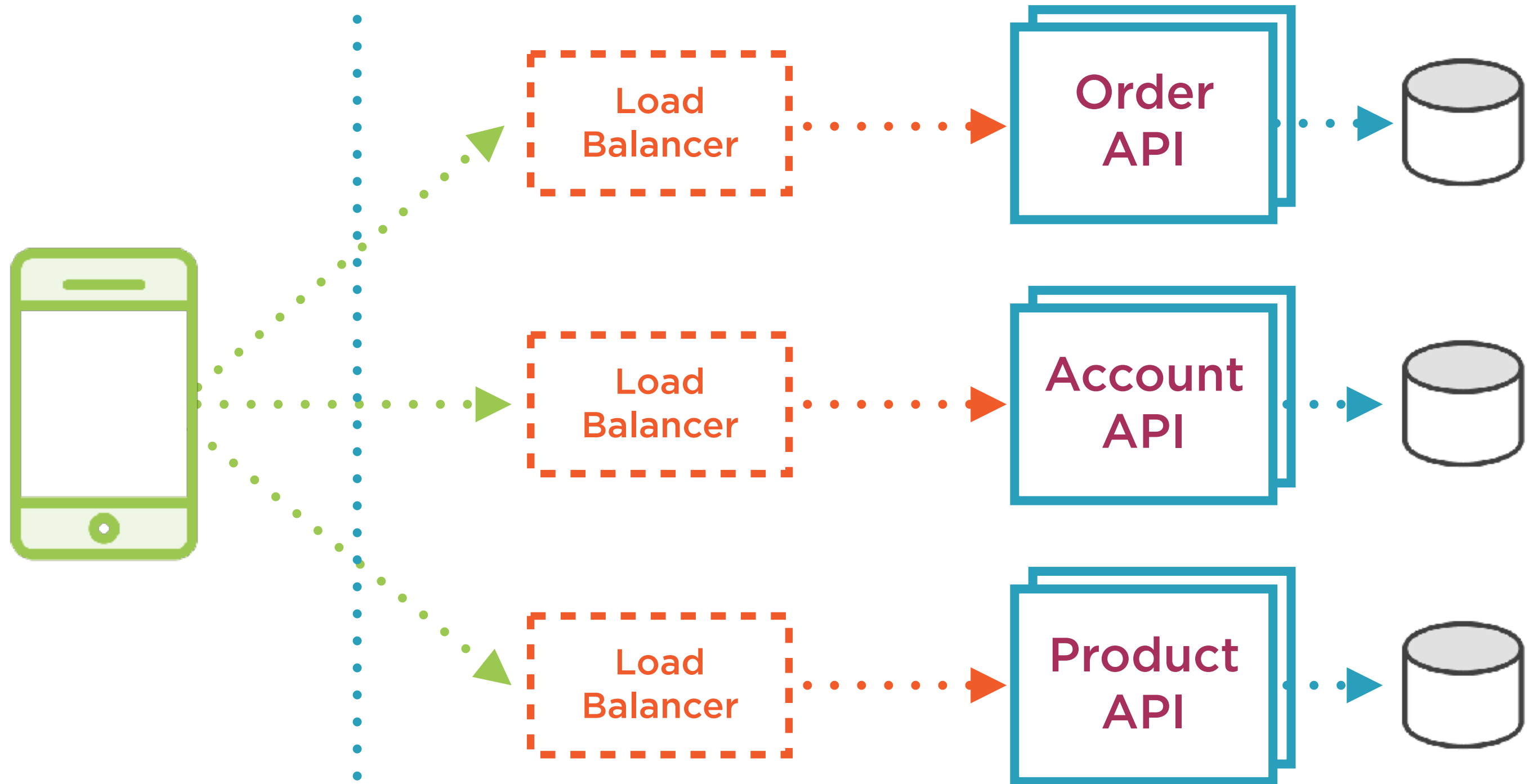- Distributed functionality
- Distributed data
- Distributed security

Complexity for client applications
- Consolidating API data
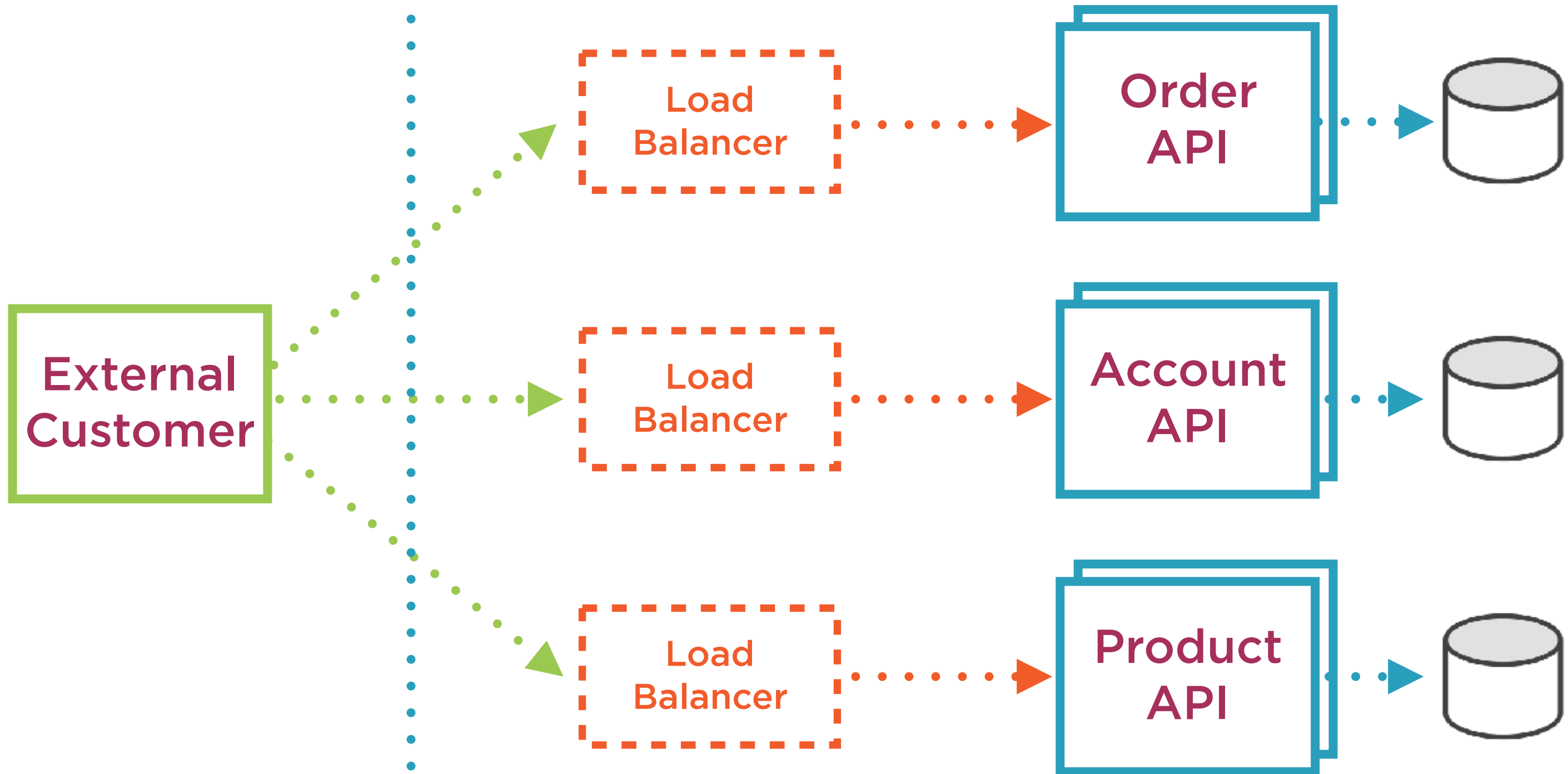- Consolidating API functionalities
- Managing security

Complicated customer experience
- APIs as a product

Mobile Client

Load Balancer

Order API

Load Balancer

Account API

Load Balancer

Product API
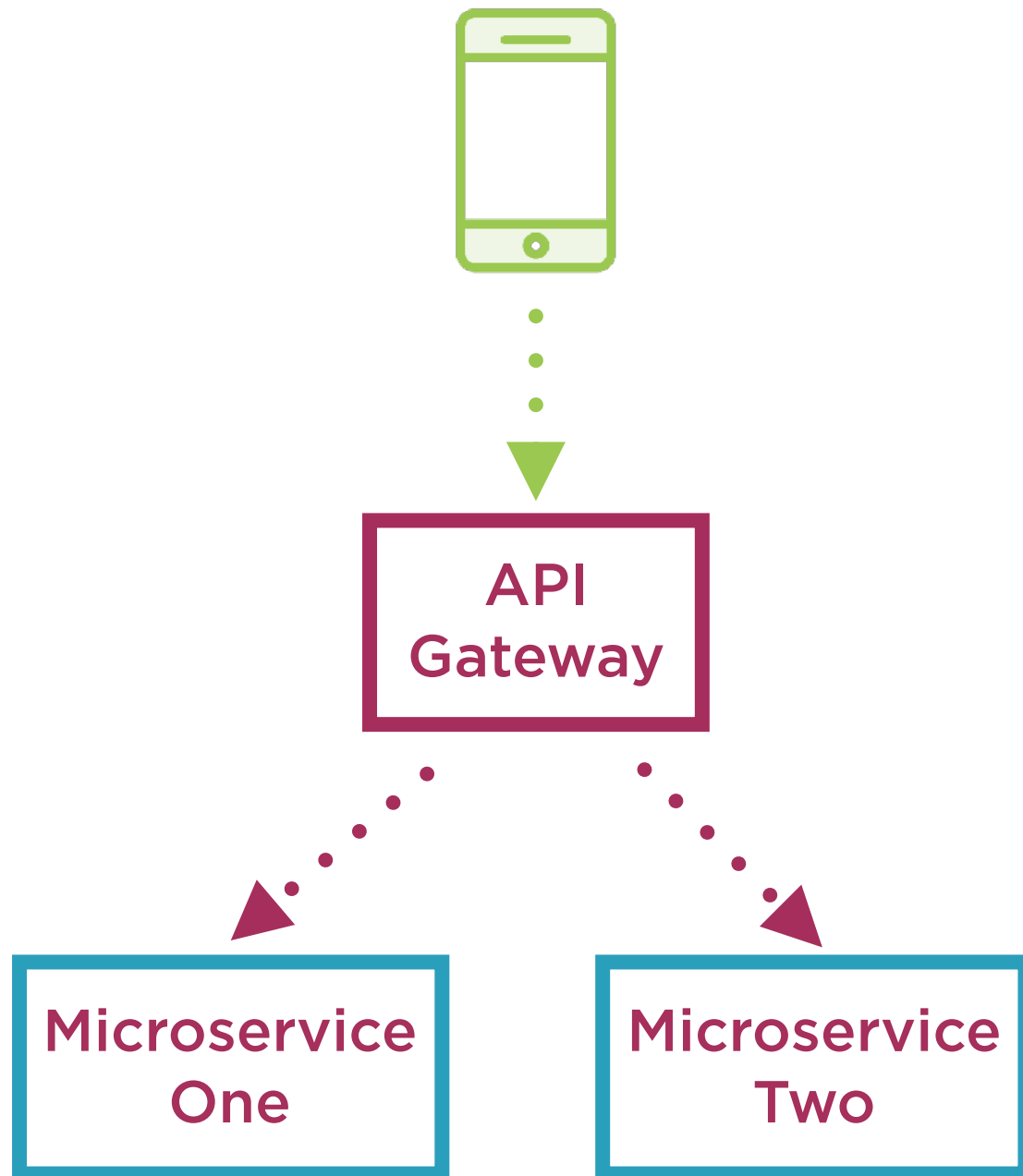
External Customers

API Gateway

Component to access APIs

An API itself
- RESTFul API
- Endpoints

More than just centralizing access
- Security/authentication
- Traffic control
- Load balancing
- Logging and monitoring
- Transformations
- Circuit breaker
- Caching

API
Gateway

Microservice
One

Microservice
Two

API Gateway

External Customer

Authentication Server

Logging Server

API Gateway REST

- Security/authentication
- Traffic control
- Load balancing
- Logging and monitoring
- Transformations
- Caching

Order API SOAP

Account API REST

Product API RPC-JSON
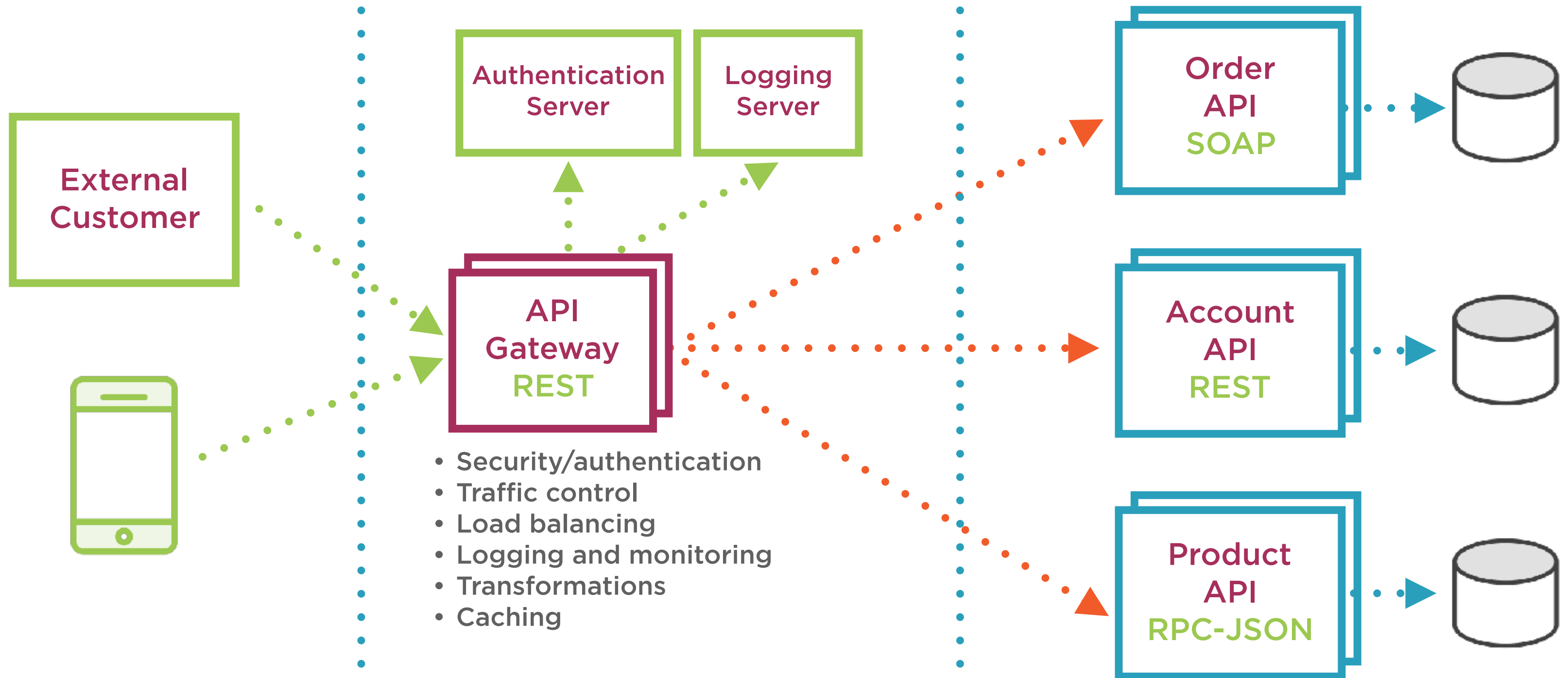
Demo

Kong API Gateway

- Dashboard

- Configuration

- Plugins

Summary

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