



buildly

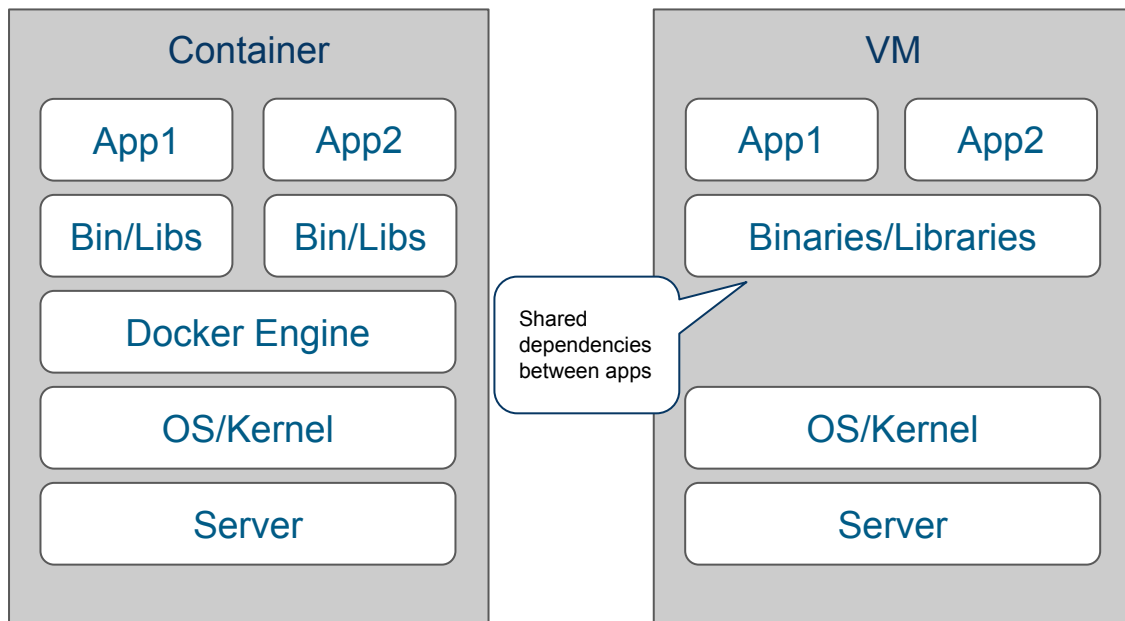
Greg Lind

CEO and Co-Founder

Microservice Flex Patterns

Building Logic Driven Services w/ Reusable and Configurable Components in Kubernetes

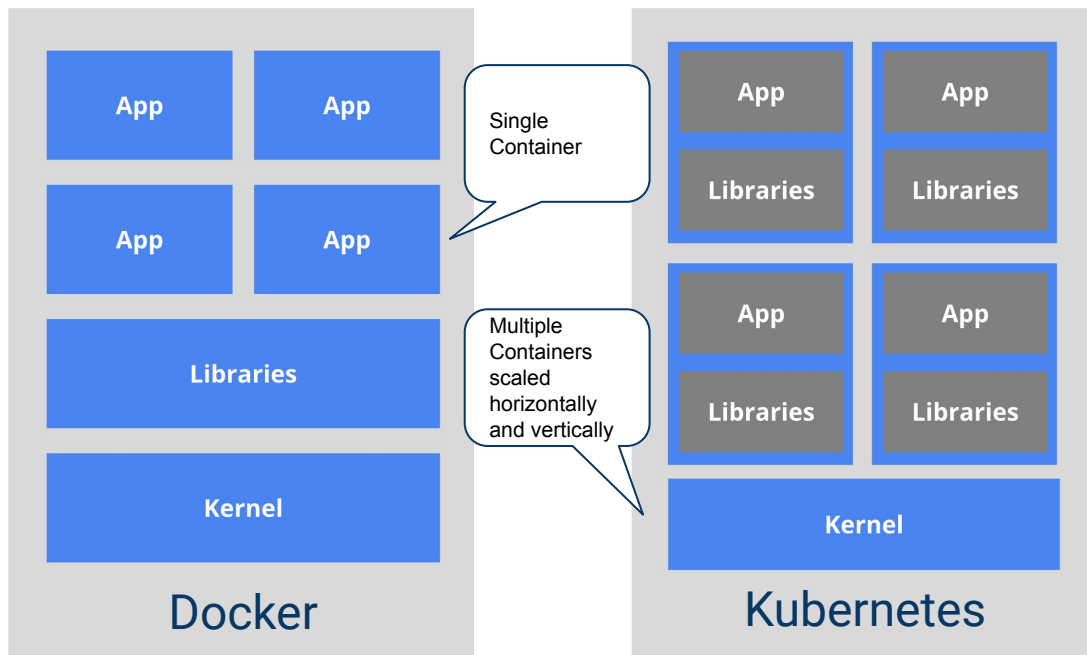
What is Docker?



Docker packages software into “containers” that have everything the software needs to run including libraries, system tools, code, and runtime.

Using Docker, you can quickly deploy and scale applications into any environment and know your code will run.

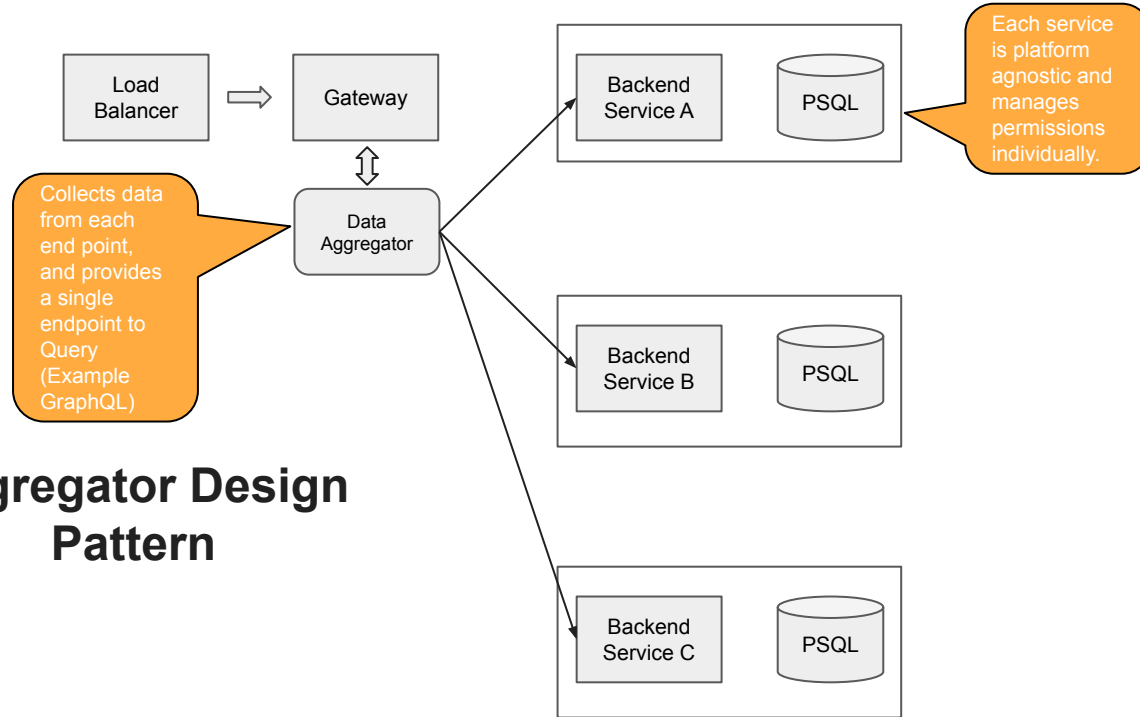
What is Kubernetes?



Kubernetes is a portable, extensible open-source platform for managing containerized workloads and services, that facilitates both configuration and automation.

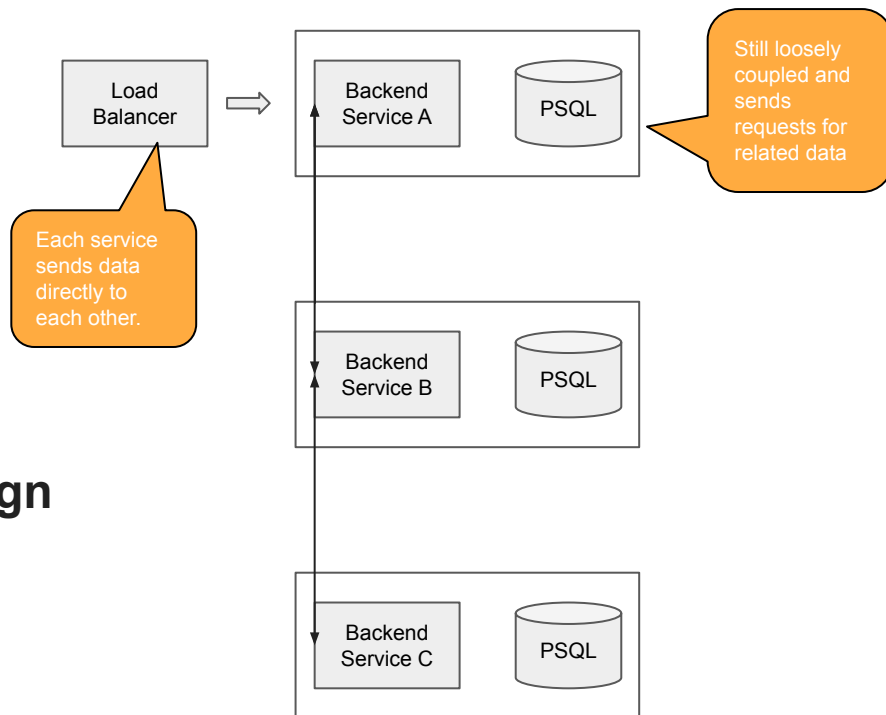
It has a large, rapidly growing ecosystem. Kubernetes services, support, and tools are widely available and standard across all of the large hosting companies

Loosely Coupled - Share Nothing - Patterns

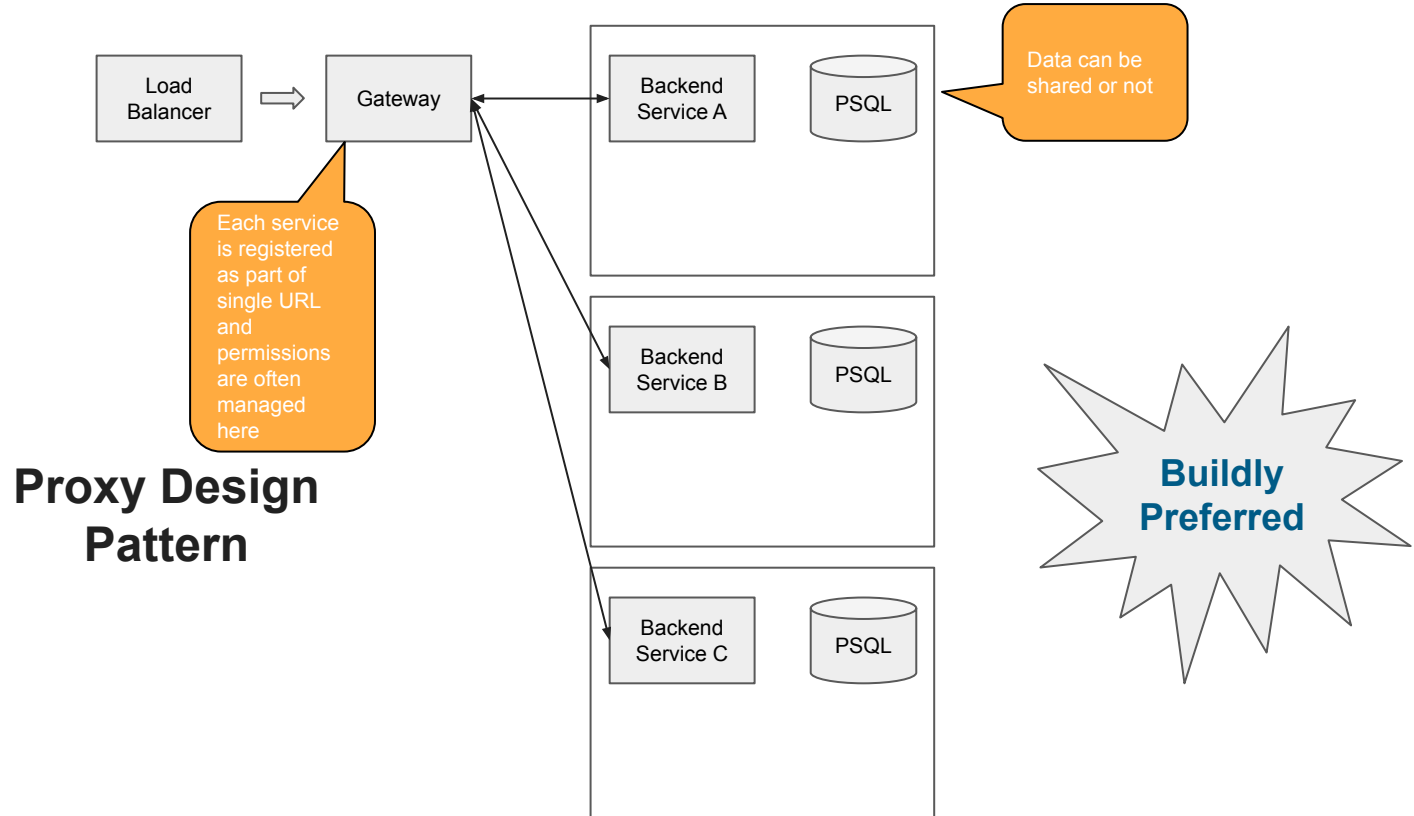


Loosely Coupled - Share Nothing - Patterns

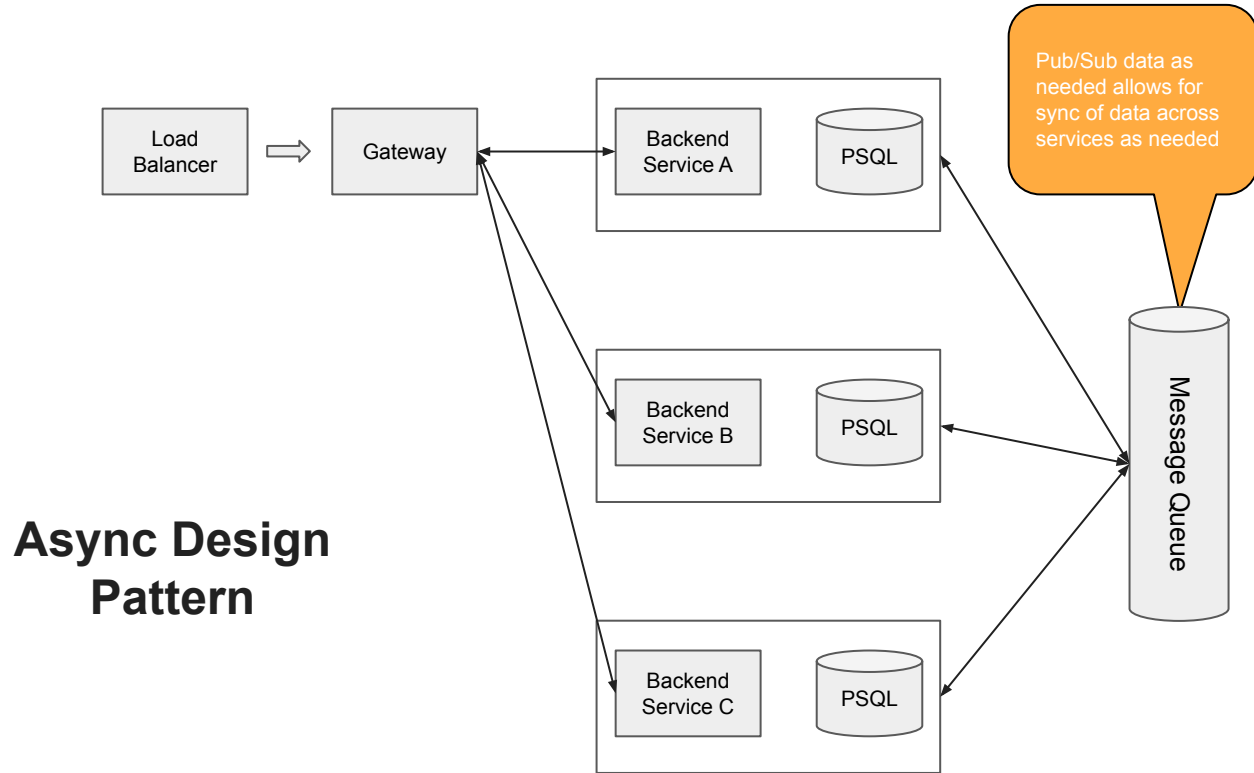
Chained Design Pattern



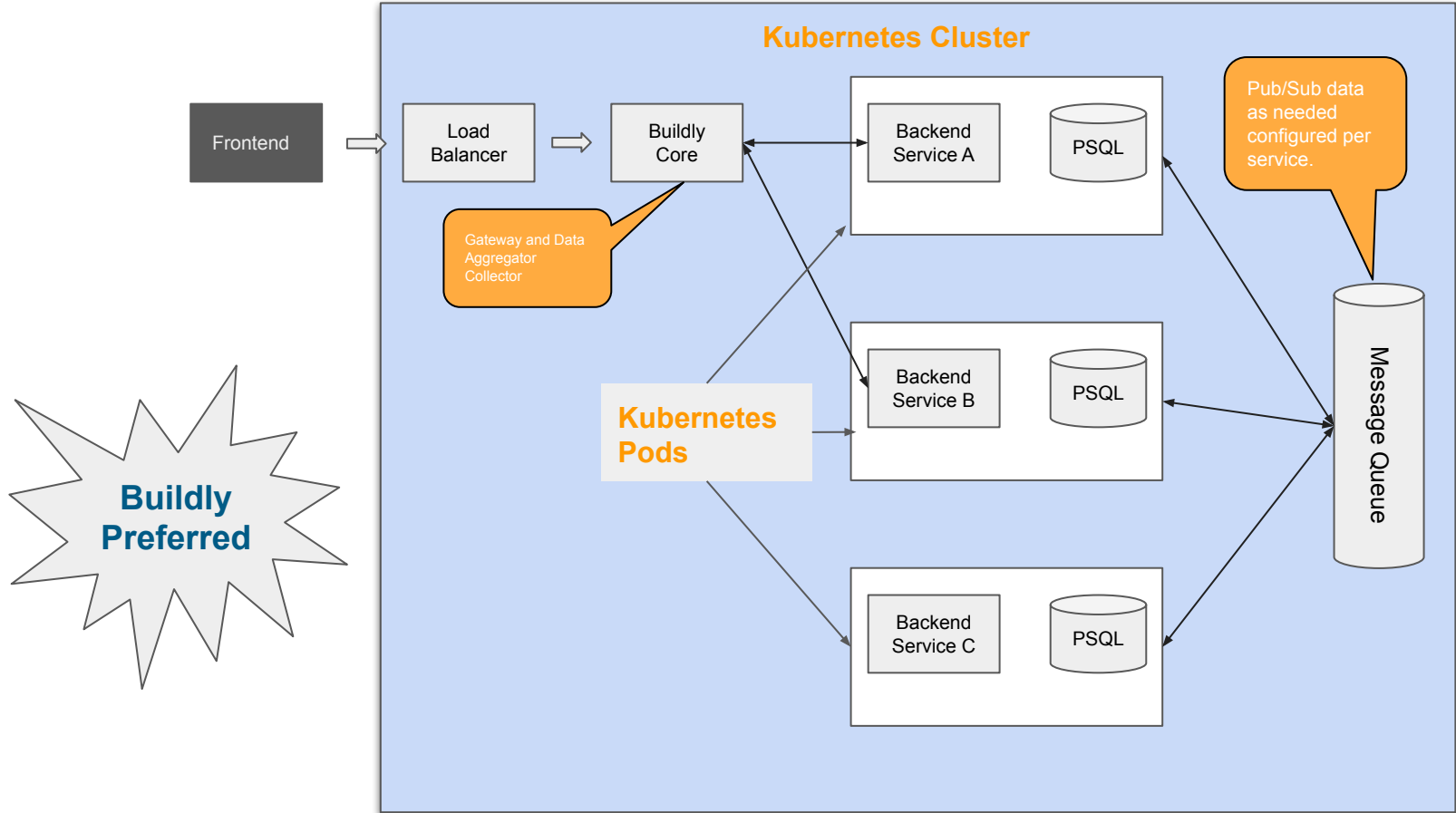
Loosely Coupled - Share Nothing - Patterns



Loosely Coupled - Shared Data - Patterns



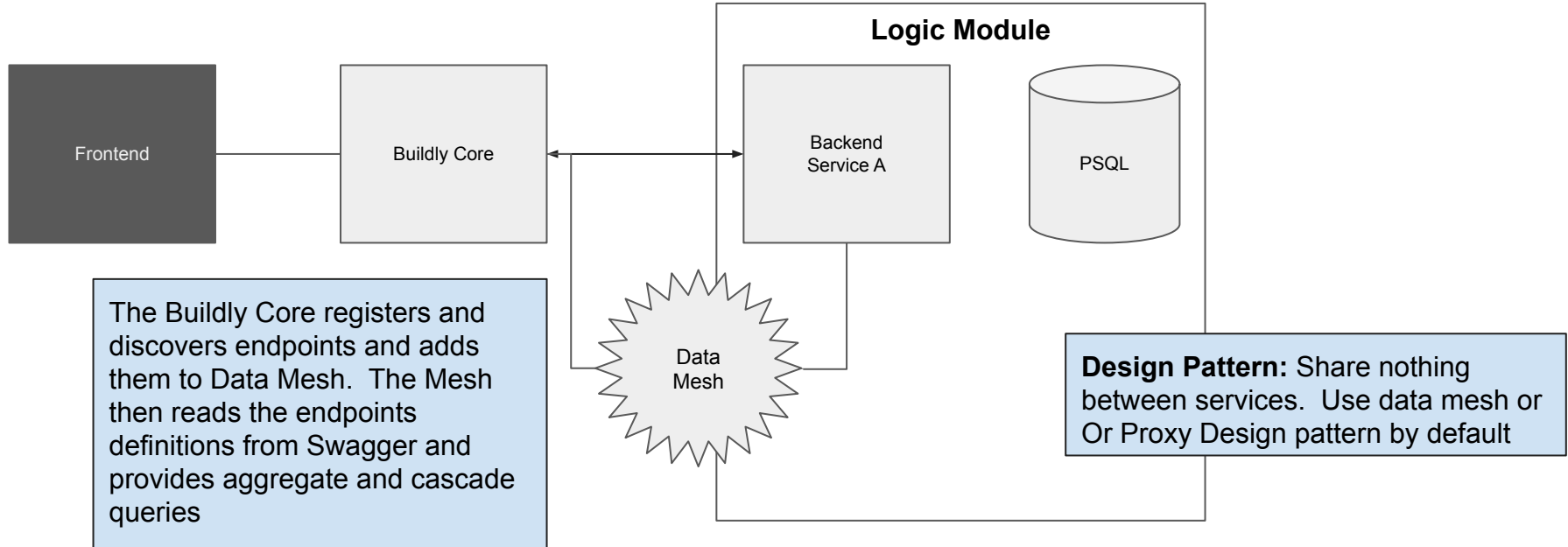
Buildly Flex Pattern



Buildly Flex Pattern

Kubernetes Pod

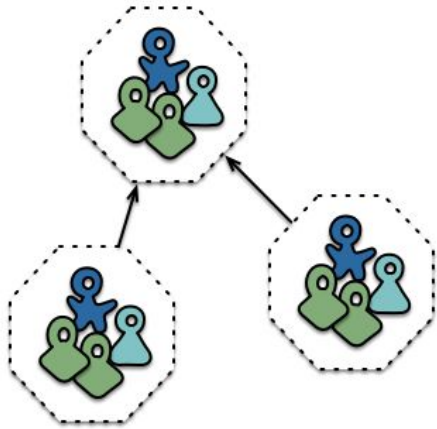
Logic Module: Backend and Frontend service paired by business driven logical separation.



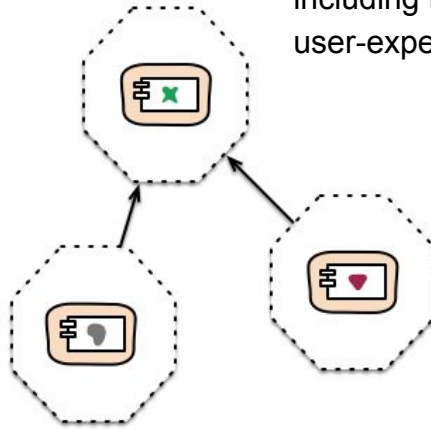
Microservice Definition

<https://www.martinfowler.com/articles/microservices.html>

The microservice approach to division is different, splitting up into services organized around **business capability**. Such services take a broad-stack implementation of software for that business area, including user-interface, persistent storage, and any external collaborations. Consequently the teams are cross-functional, including the full range of skills required for the development: user-experience, database, and project management.



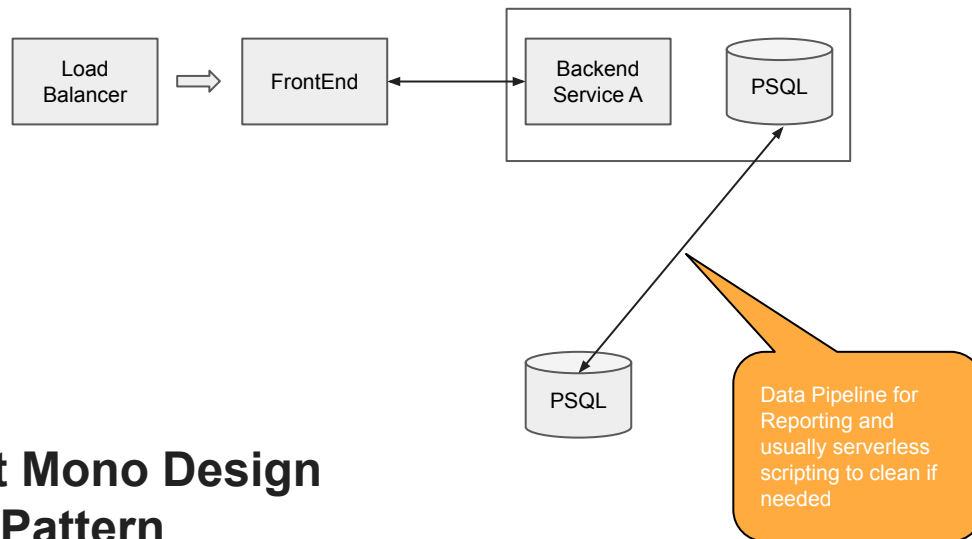
Cross-functional teams...



... organised around capabilities
Because Conway's Law

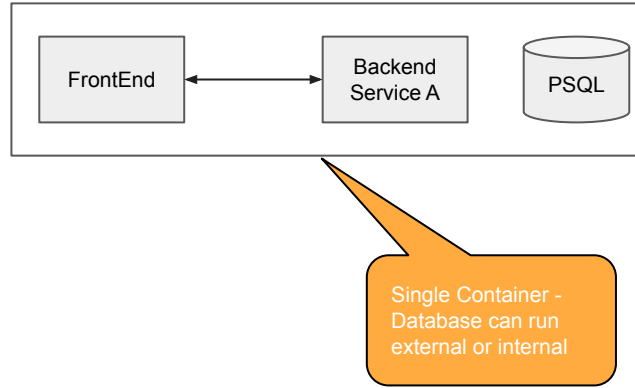
Logic Module vs Microservice:
Follows the Fowler pattern of business capabilities and drops the term “micro” and focuses on business functionality

Monolithic Design Pattern



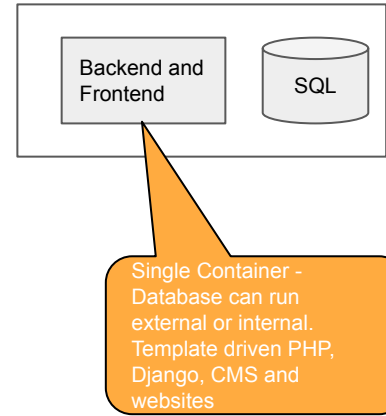
**Robust Mono Design
Pattern**

Monolithic Design Pattern



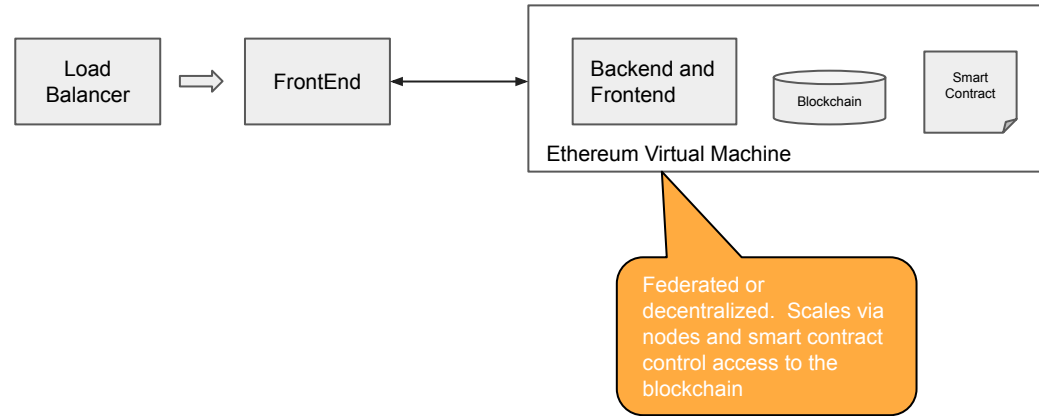
Mini App Design Pattern

Monolithic Design Pattern



Micro App Design Pattern

Distributed Design Pattern



Distributed App Design Pattern