Microservices

What is a Microservice?

Microservices are a software development technique—a variant of the service-oriented architecture (SOA) architectural style that structures an application as a collection of loosely coupled services...

In a microservices architecture, services are fine-grained...

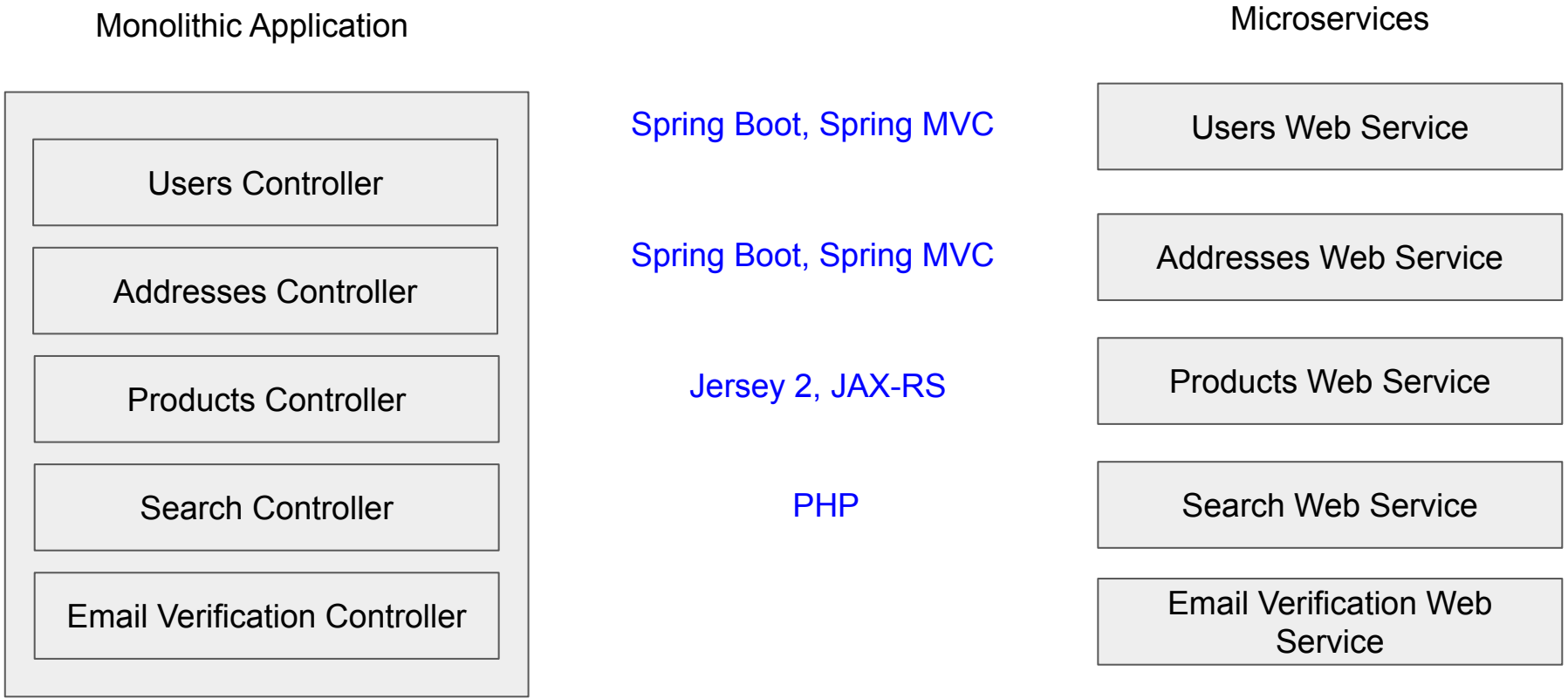
The benefit of decomposing an application into different smaller services is that it improves modularity. This makes the application easier to understand, develop, test, and become more resilient to architecture erosion.[1]

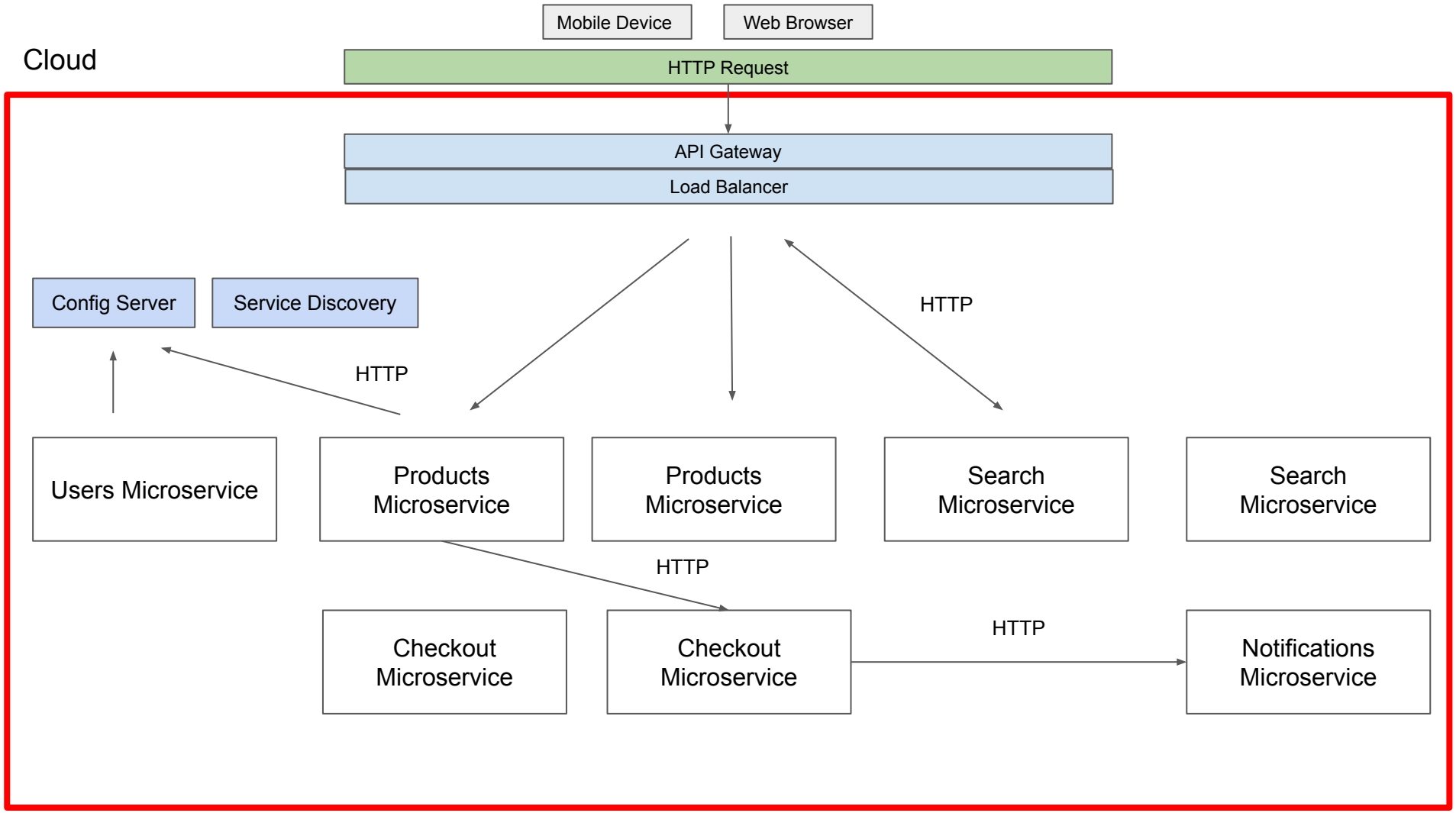
It parallelizes development by enabling small autonomous teams to develop, deploy and scale their respective services independently.[2]

What is a Microservice

- A Web Service
- Small and Responsible for one thing (Search, Password Reset, Email Verification)
- Configured to work in the Cloud and is easily scalable

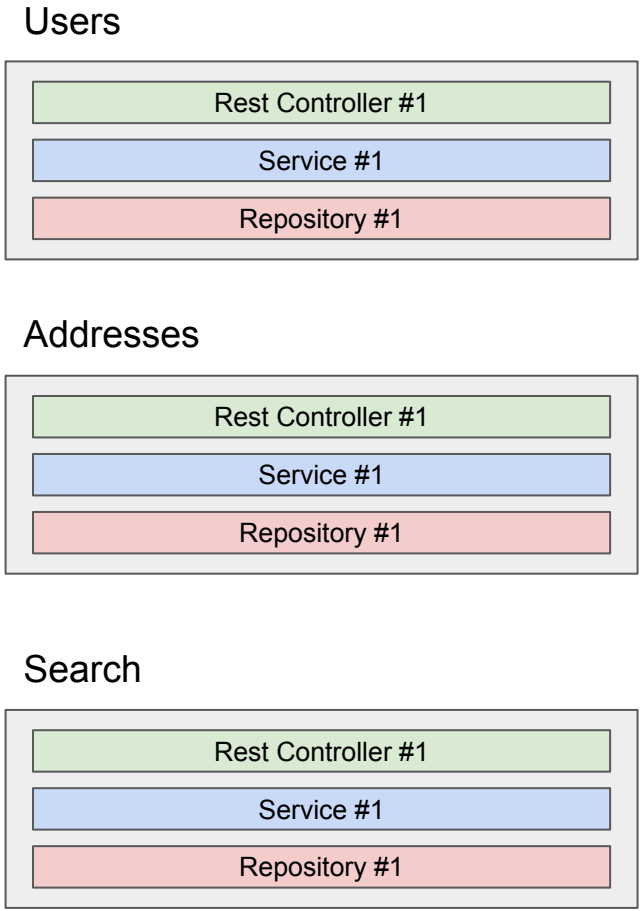
Microservice vs Monolithic Application




Mobile Device
Web Browser
Cloud
HTTP Request
API Gateway
Load Balancer
Config Server
Service Discovery
HTTP
HTTP
Users Microservice
Products Microservice
Products Microservice
Search Microservice
Search Microservice
HTTP
Checkout Microservice
Checkout Microservice
HTTP
Notifications Microservice

What is a Microservice

- RESTful Web Service
- Small and Responsible for one thing (Search, Password Reset, Email Verification)
- Configured to work in the cloud



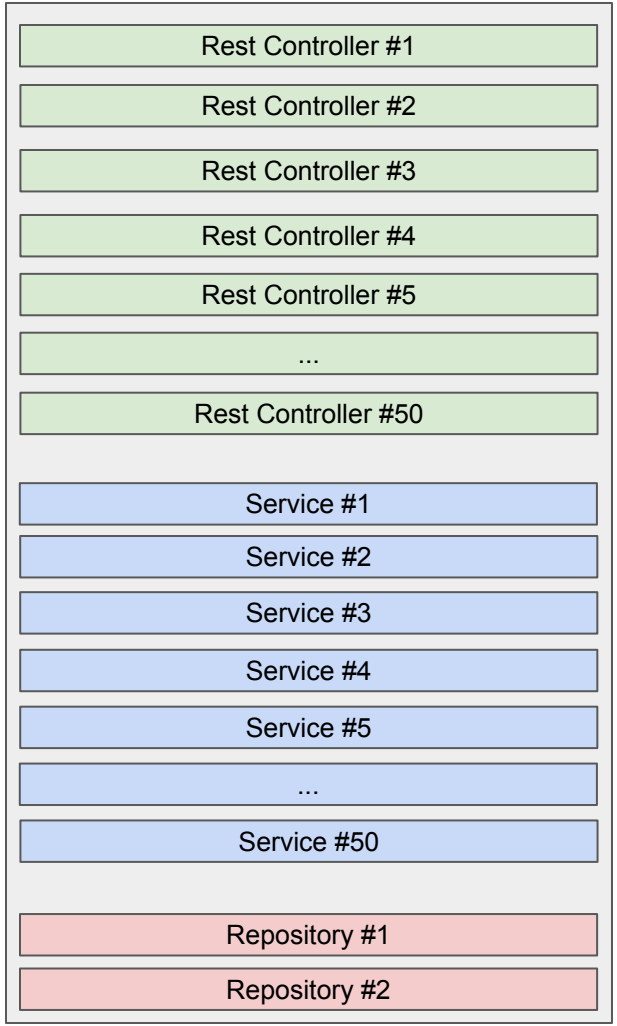
Monolithic Application

Advantages:

- It is easier to to begin with,
- Faster initial development time,
- Easier to deploy 1 app, than 20 independent apps.

Disadvantages:

- Harder to maintain, harder to release changes,
- Difficult for new developers to understand,
- All done with one technology.



Microservices

Advantages:

- Small and focused on one domain or functionality,
- Independent,
- Easier to refactor, rework and use new technology.

Disadvantages:

- Slower to begin with,
- Slower to develop entire application if doing it alone,
- More complex architecture,