Microservices
with Spring Cloud

Spencer Gibb, Pivotal

start

Pivotal®

CLOUD FOUNDRY

spring
by Pivotal™

RabbitMQ™
Messaging that just works

redis

APACHE GEODE

GREENPLUM DATABASE

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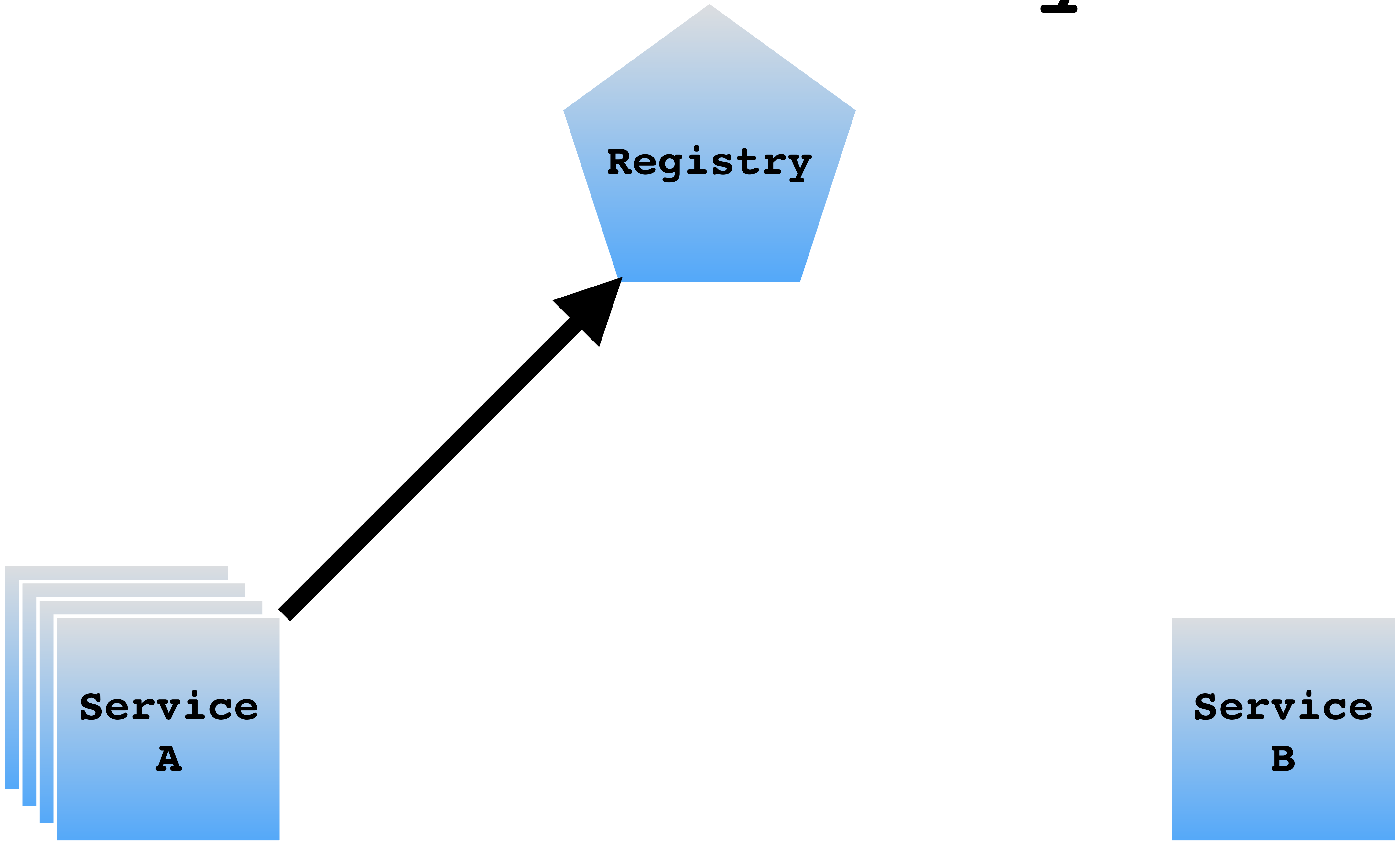
Service Registration & Discovery



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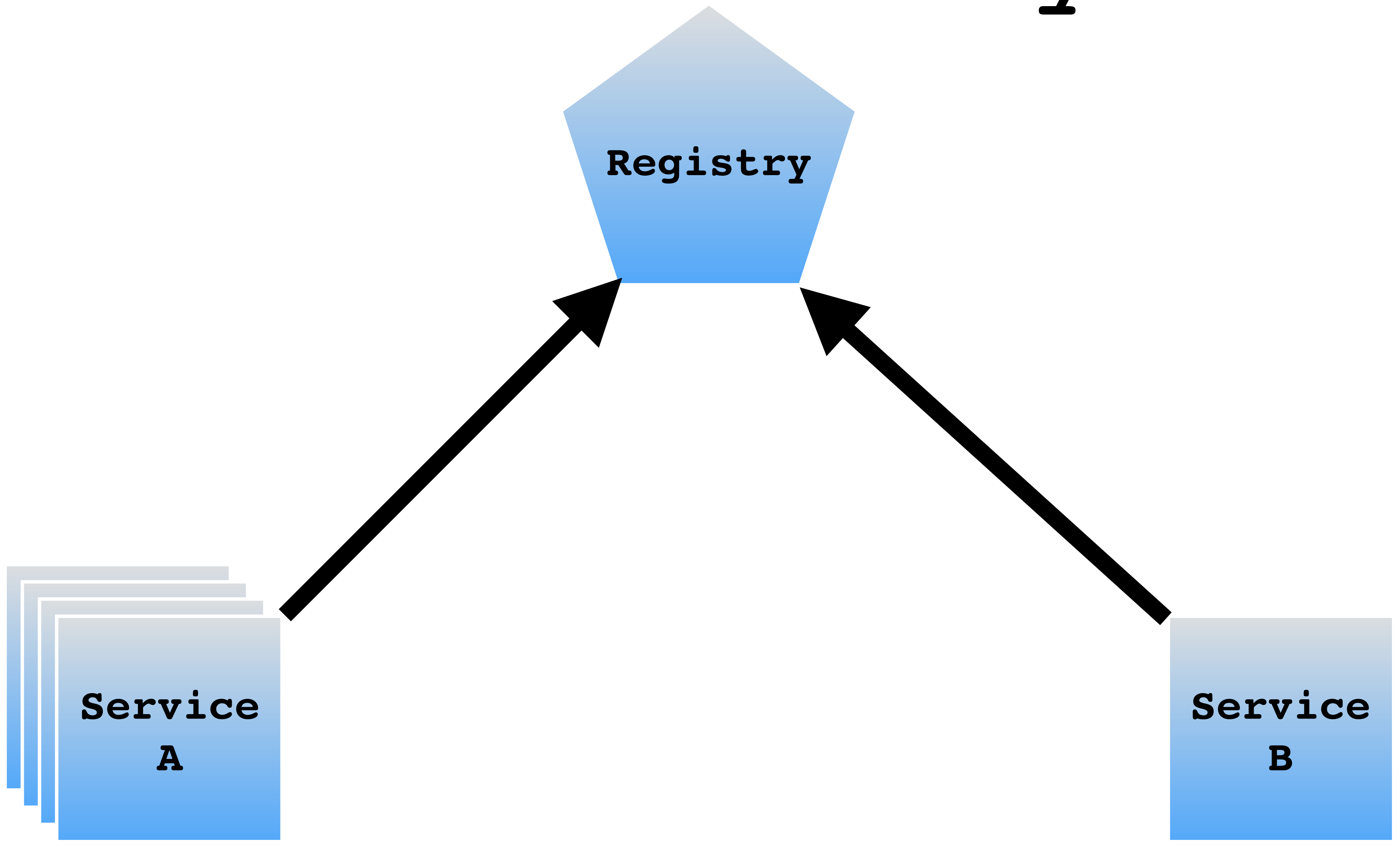
Service Registration & Discovery



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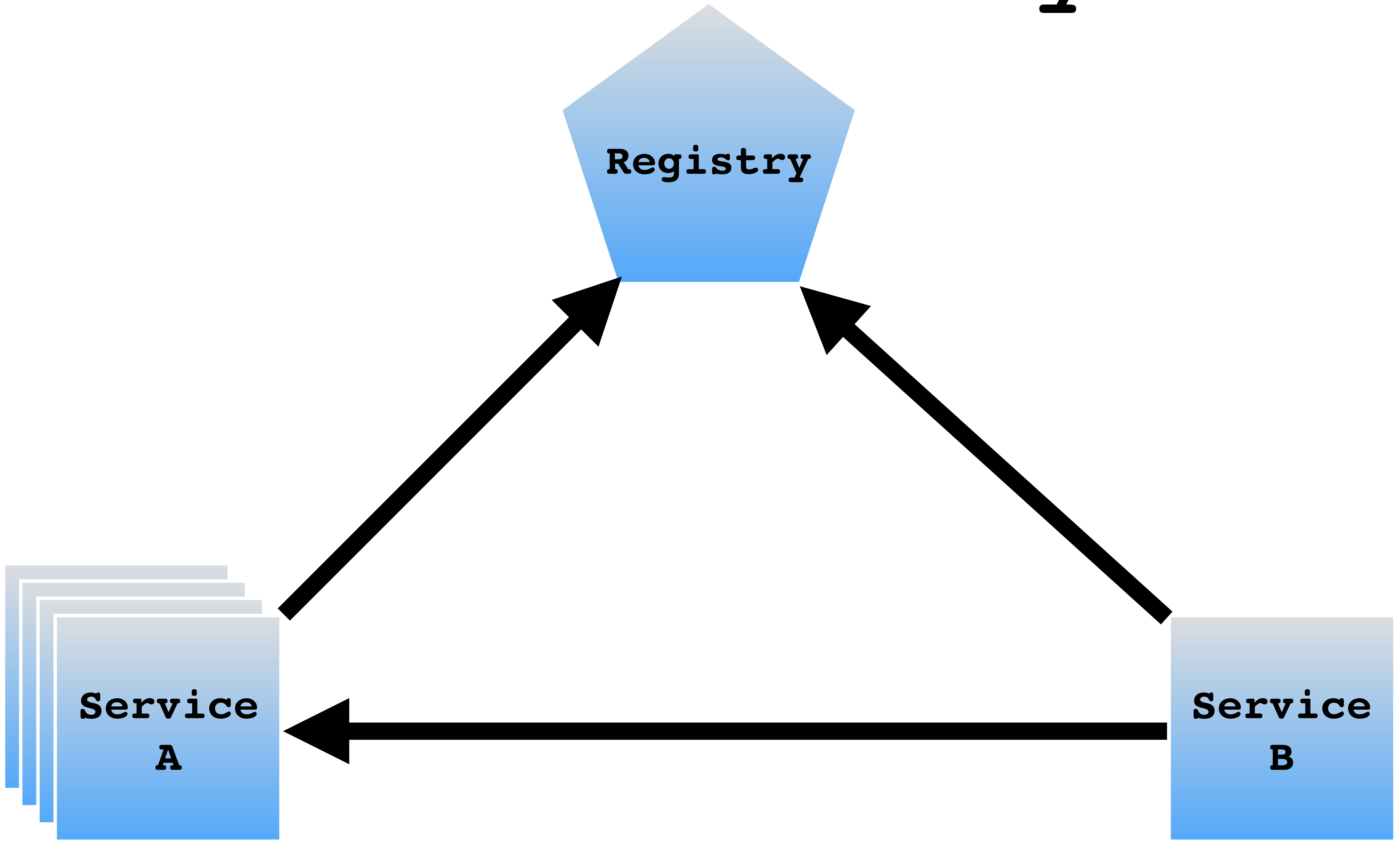
Service Registration & Discovery

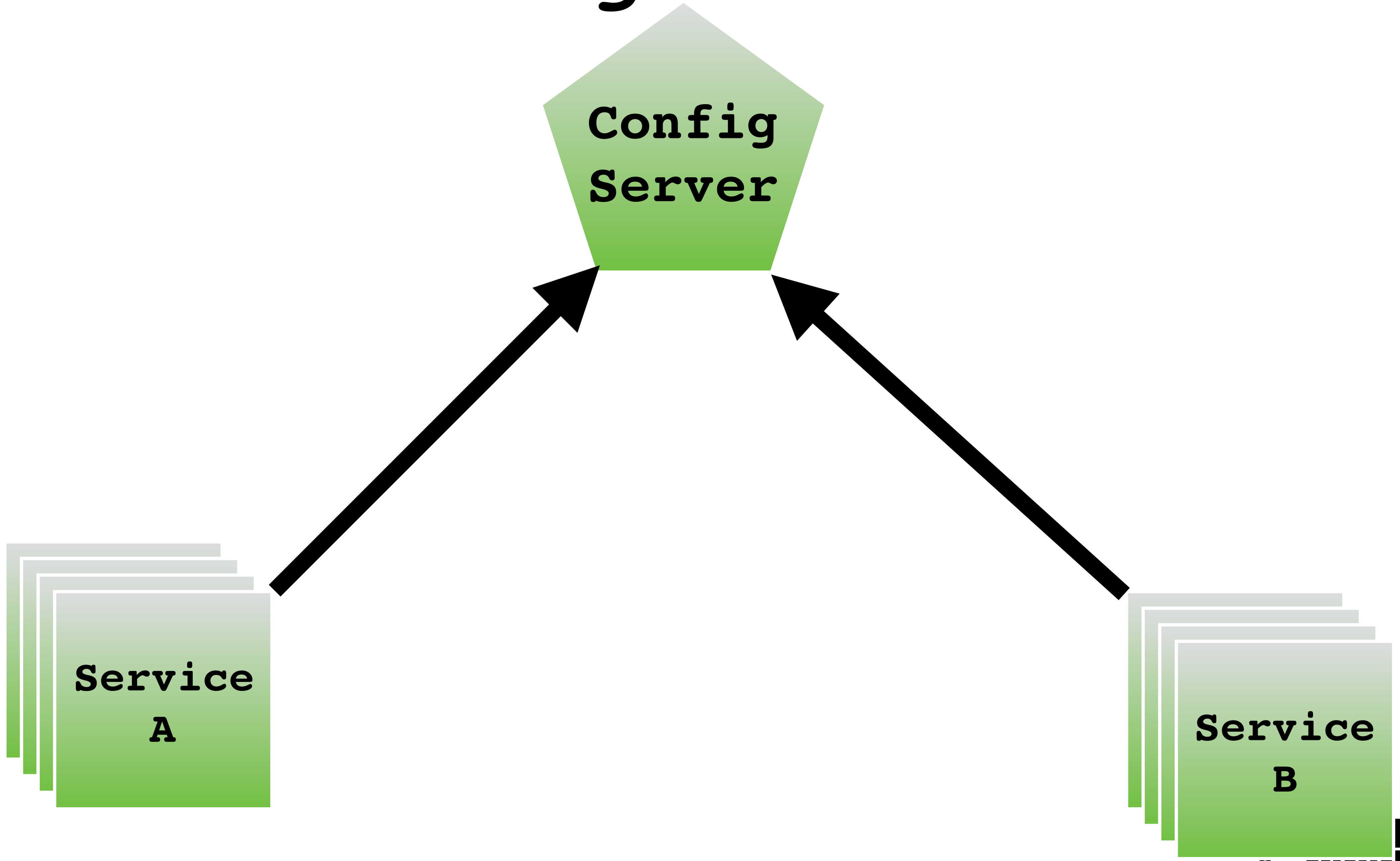


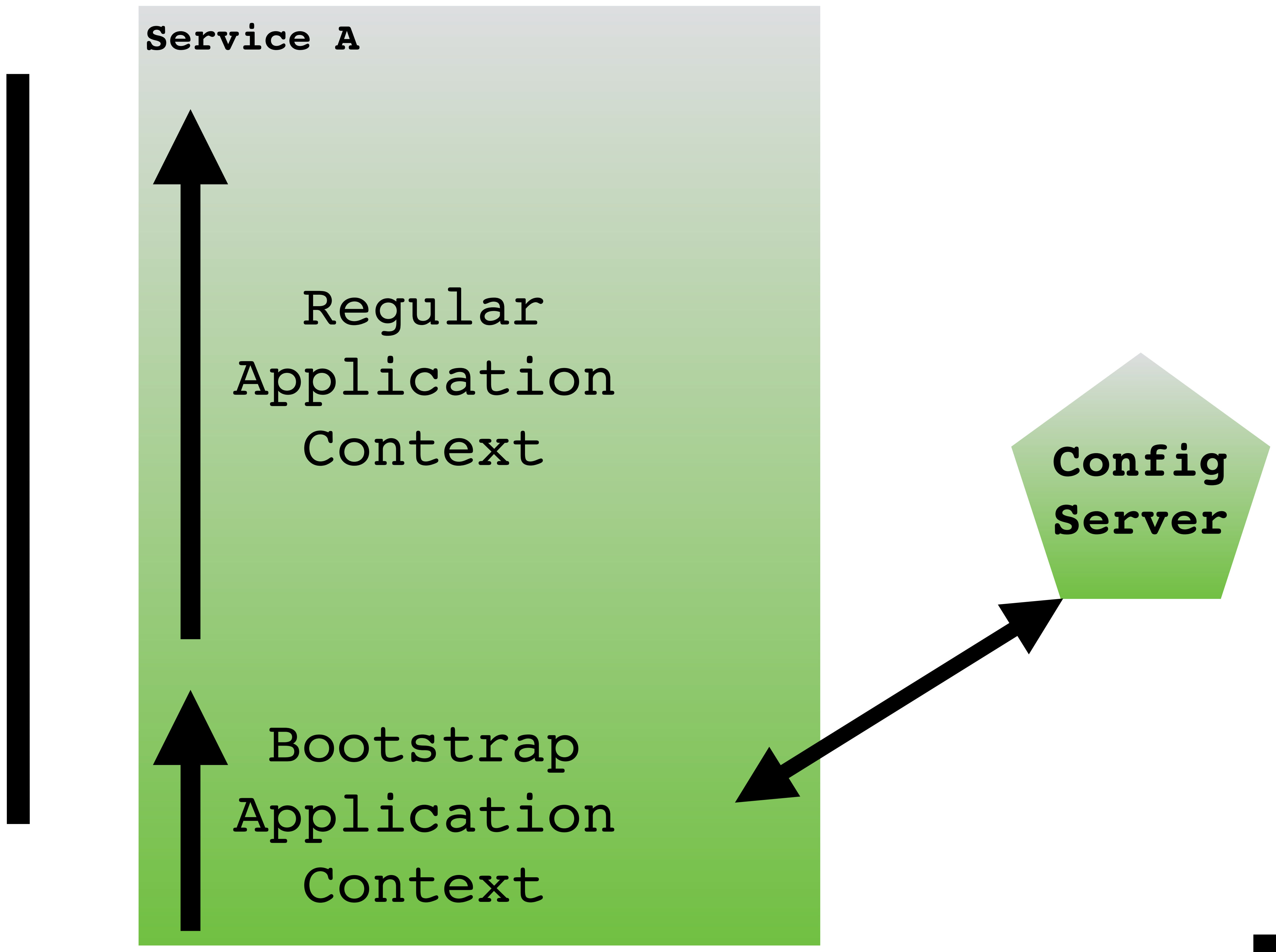
DiscoveryClient

```
@EnableDiscoveryClient

ServiceInstance si =
discoveryClient.choose(“serviceId”)
```

Distributed Configuration




Service A
Regular Application Context
Bootstrap Application Context
Config Server

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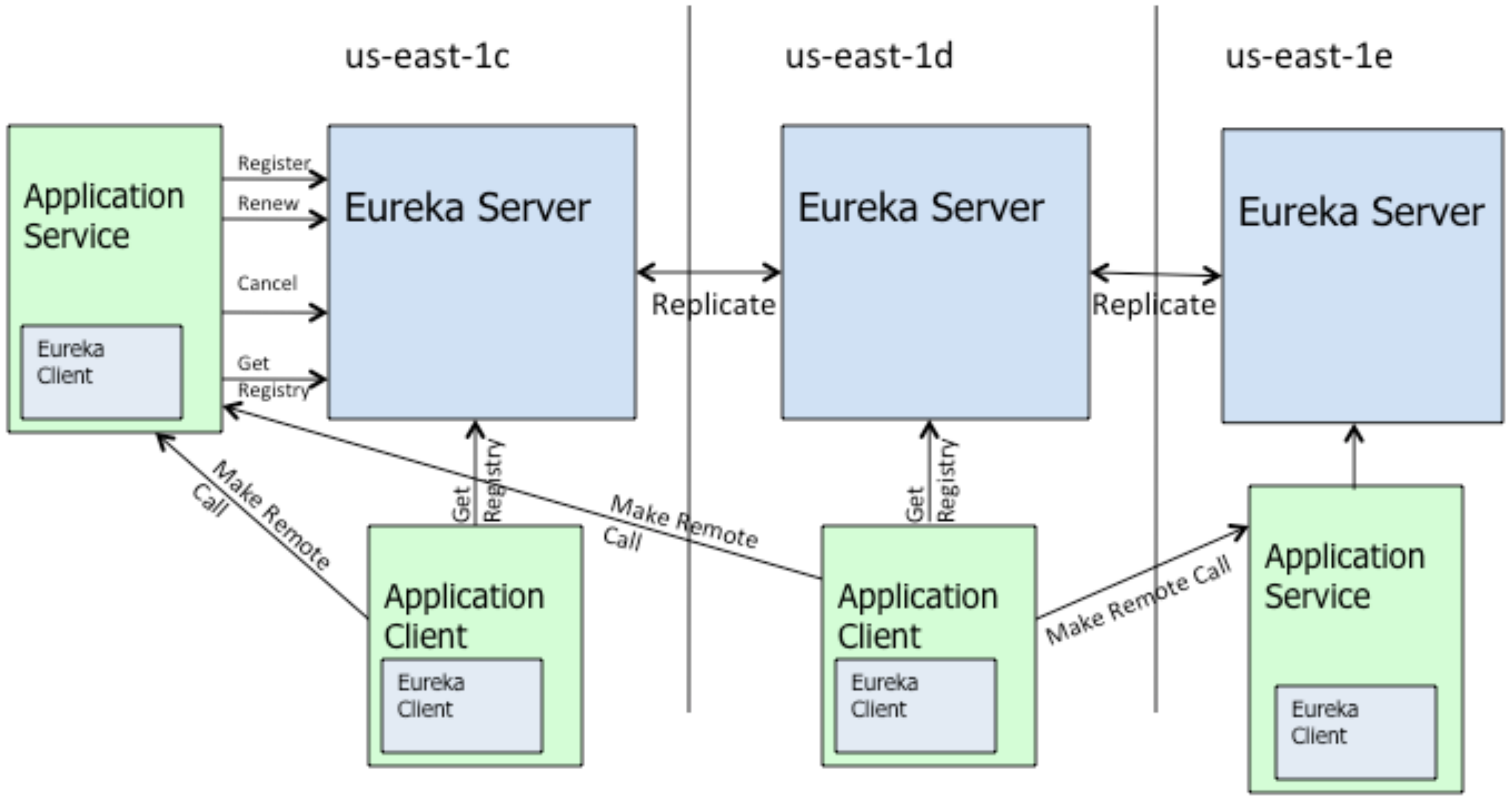
Environment

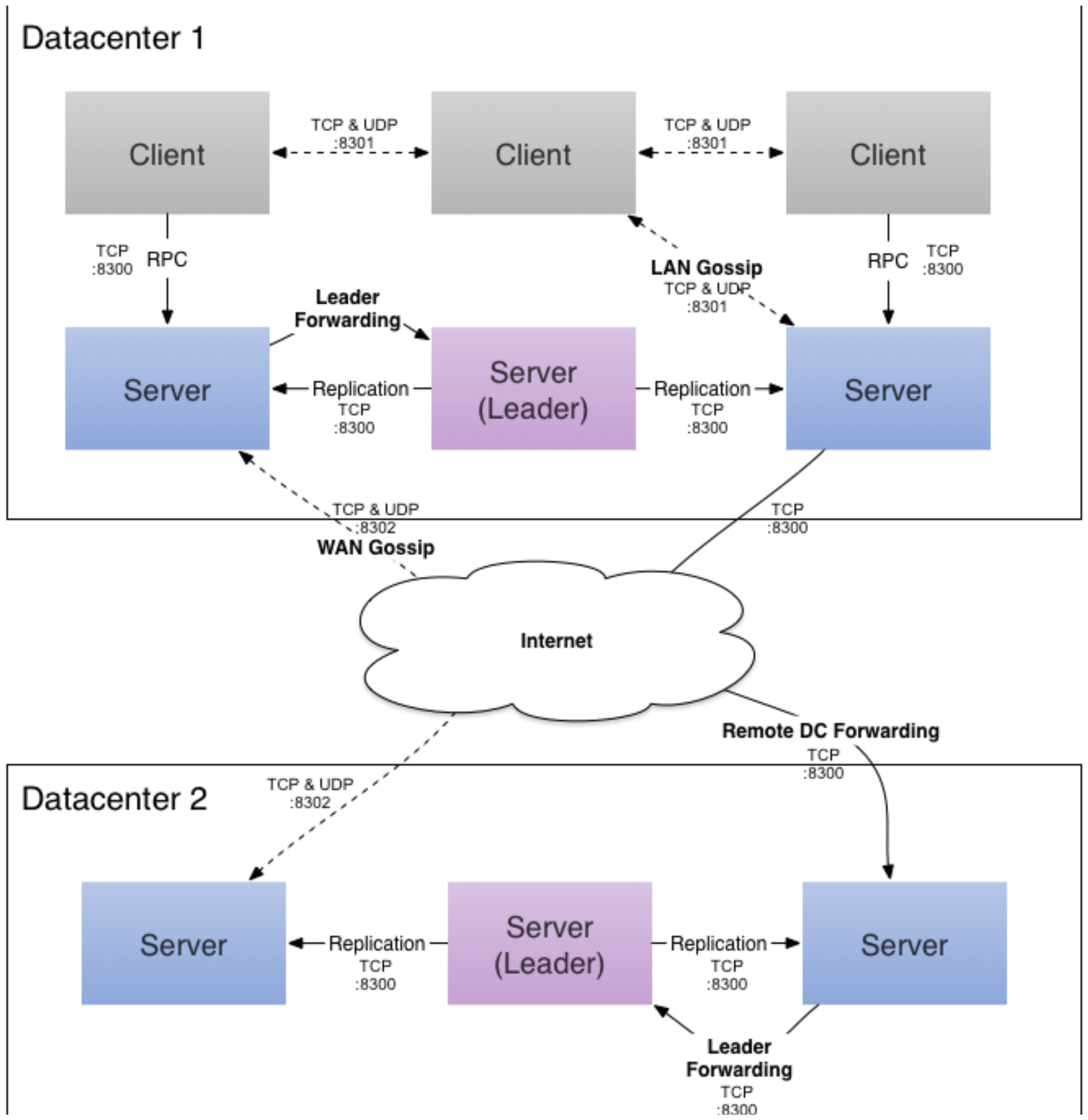
@ConfigurationProperties

@Value



Eureka

NETFLIX



Consul

HASHICORP™

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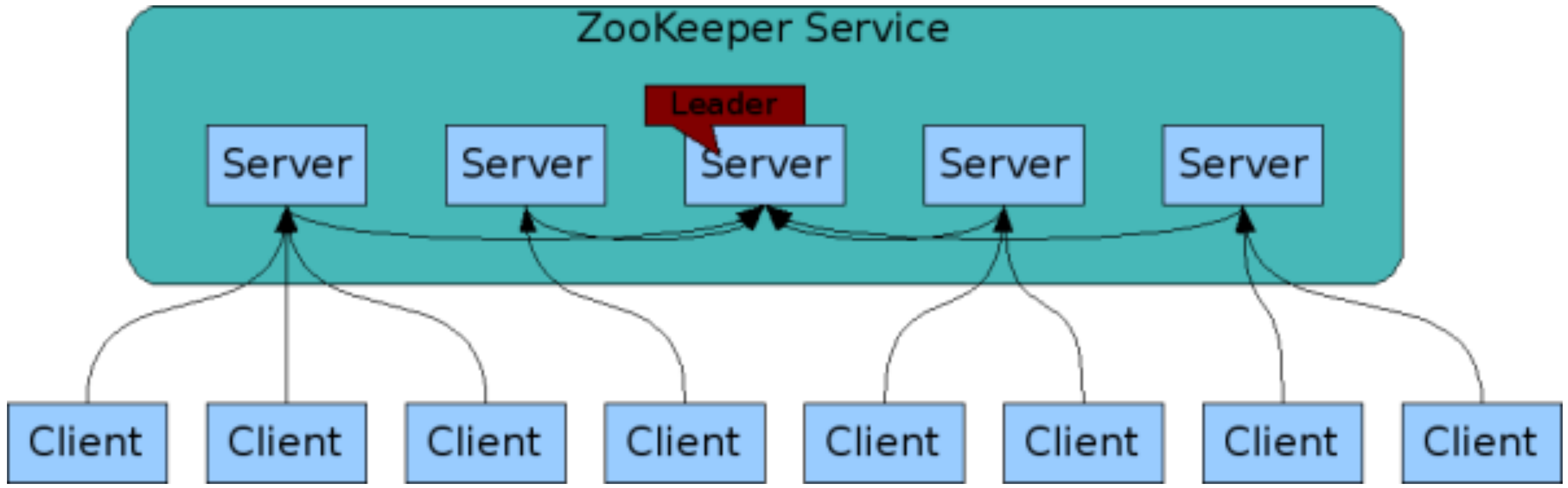

Zookeeper

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Spring Cloud Sleuth

- Via Josh Long @starbuxman
- Sleuth is a distributed tracing framework: propagate correlation IDs across processes to understand request path
- Sleuth has traces (aggregate journey of a request) and Spans (each hop in journey from egress to ingress point)
- Sleuth Stream marshals captured Sleuth Spans over a Spring Cloud Stream binder (RabbitMQ, Kafka, etc.)
- Stream Zipkin takes marshaled Spans & writes to Zipkin DB for analysis
- Once you have instrumented nodes emitting Spans via Sleuth Stream to Zipkin Stream server, fire up https://github.com/openzipkin/zipkin/tree/master/zipkin-web