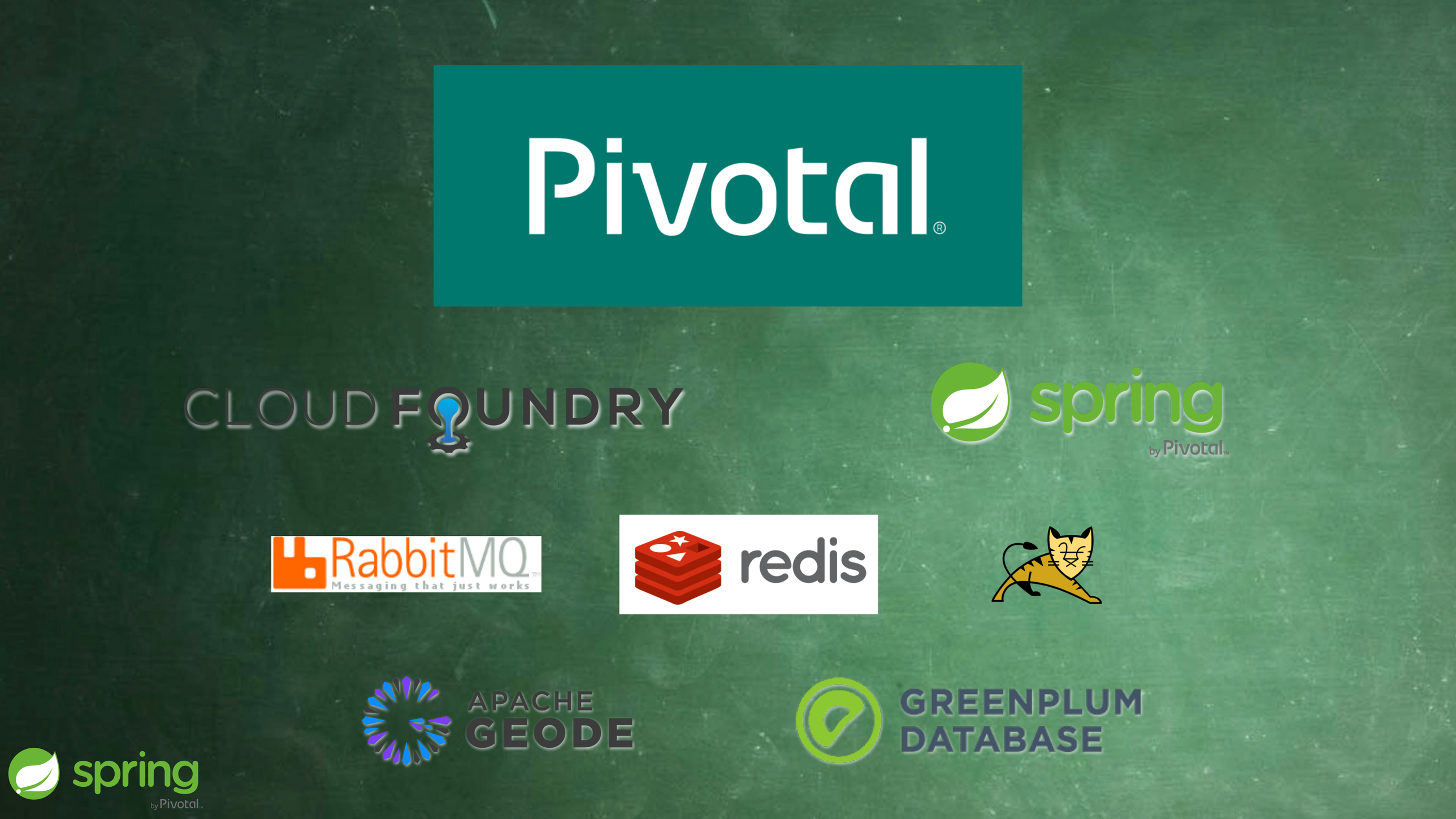
# SPRING CLOUD *

## DISCOVERY AND CONFIG SYSTEMS COMPARISON

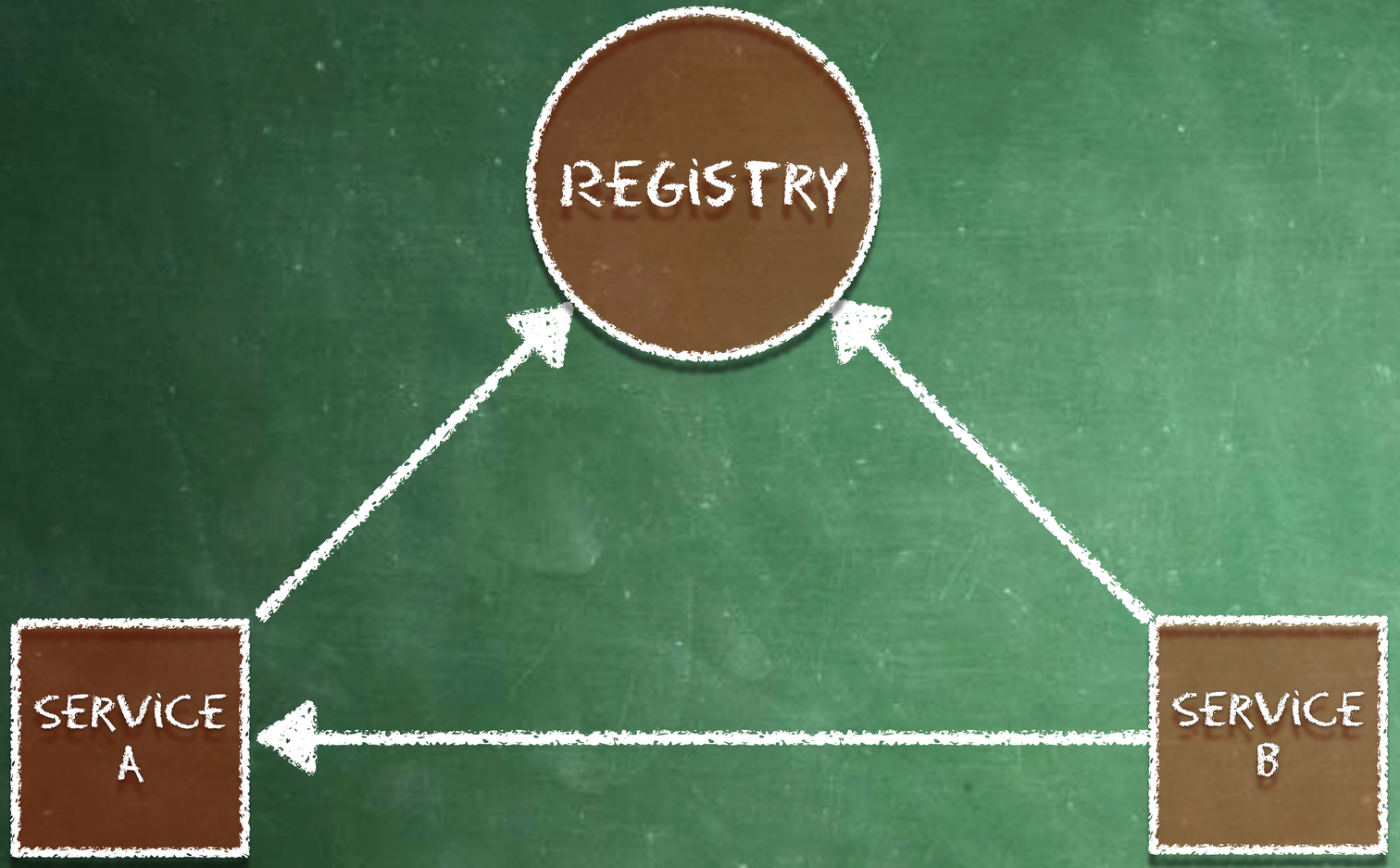
SPENCER GIBB

https://github.com/spencergibb/spring-cloud-star
http://spencer.gibb.us

spring by Pivotal


Pivotal
CLOUD FOUNDRY
spring
by Pivotal
RabbitMQ
Messaging that just works
redis
APACHE
GEODE
GREENPLUM
DATABASE
spring
by Pivotal

# SERVICE REGISTRATION & DISCOVERY

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# DiscoveryClient

- @EnableDiscoveryClient
- ServiceInstance si = discoveryClient.choose(“serviceId”)
- RestTemplate
- @FeignClient

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# DISTRIBUTED CONFIGURATION

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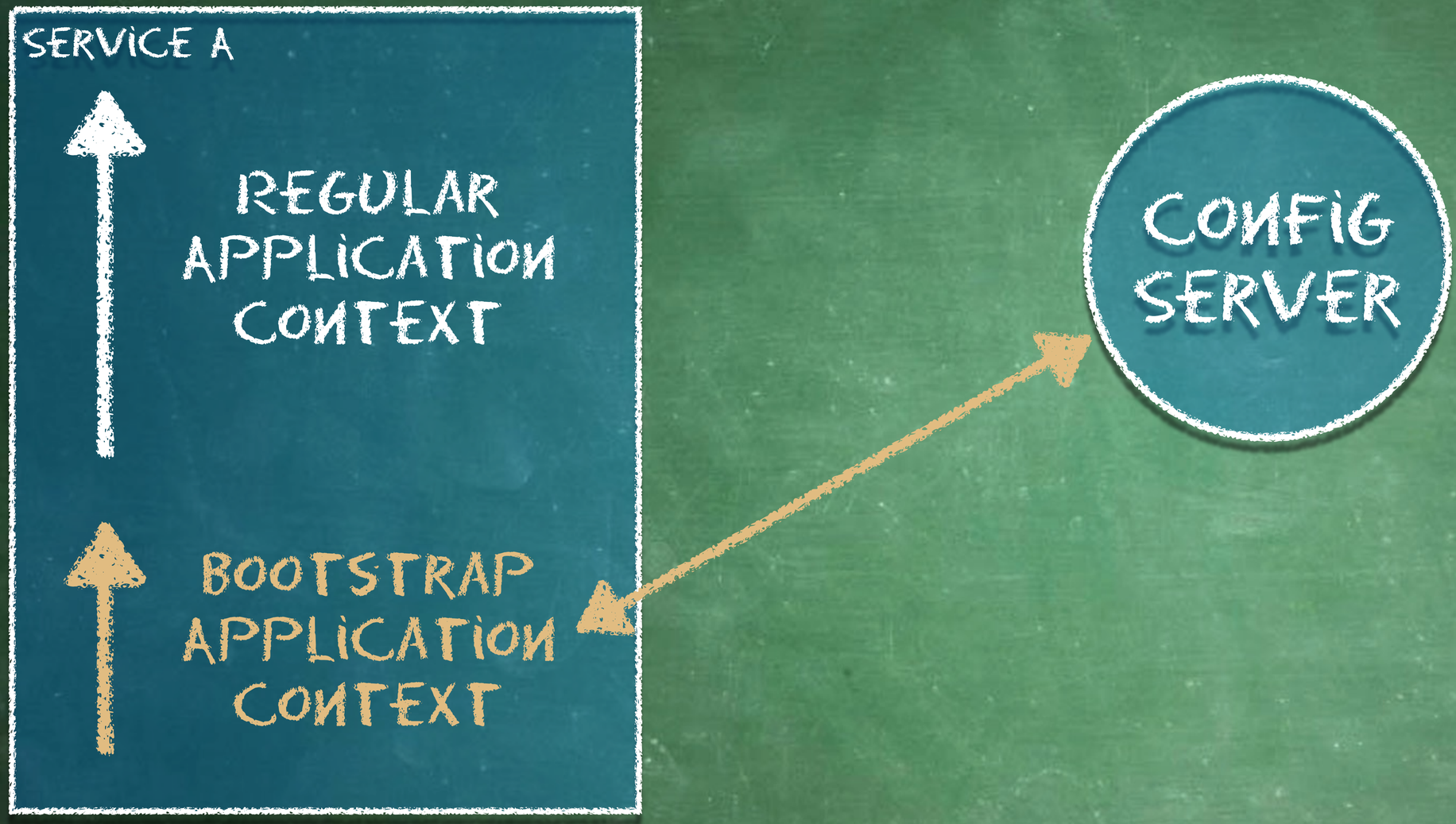
# CONTEXT LIFECYCLE

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# Environment

- @ConfigurationProperties
- @Value
- Environment

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# SPRING CLOUD CONFIG SERVER

- GREENFIELD
- HTTP API SIMILAR TO NETFLIX CONFIG SERVER
- BACKED BY VCS: GIT, SVN
- STATELESS
- @RefreshScope
- USES SPRING-BOOT CONFIGURATION FILES & SEMANTICSAUTO-CONFIGURED CLIENT
- REFRESH VIA BUS
- WEBHOOK SUPPORT FOR GITHUB, GITLAB AND BITBUCKET

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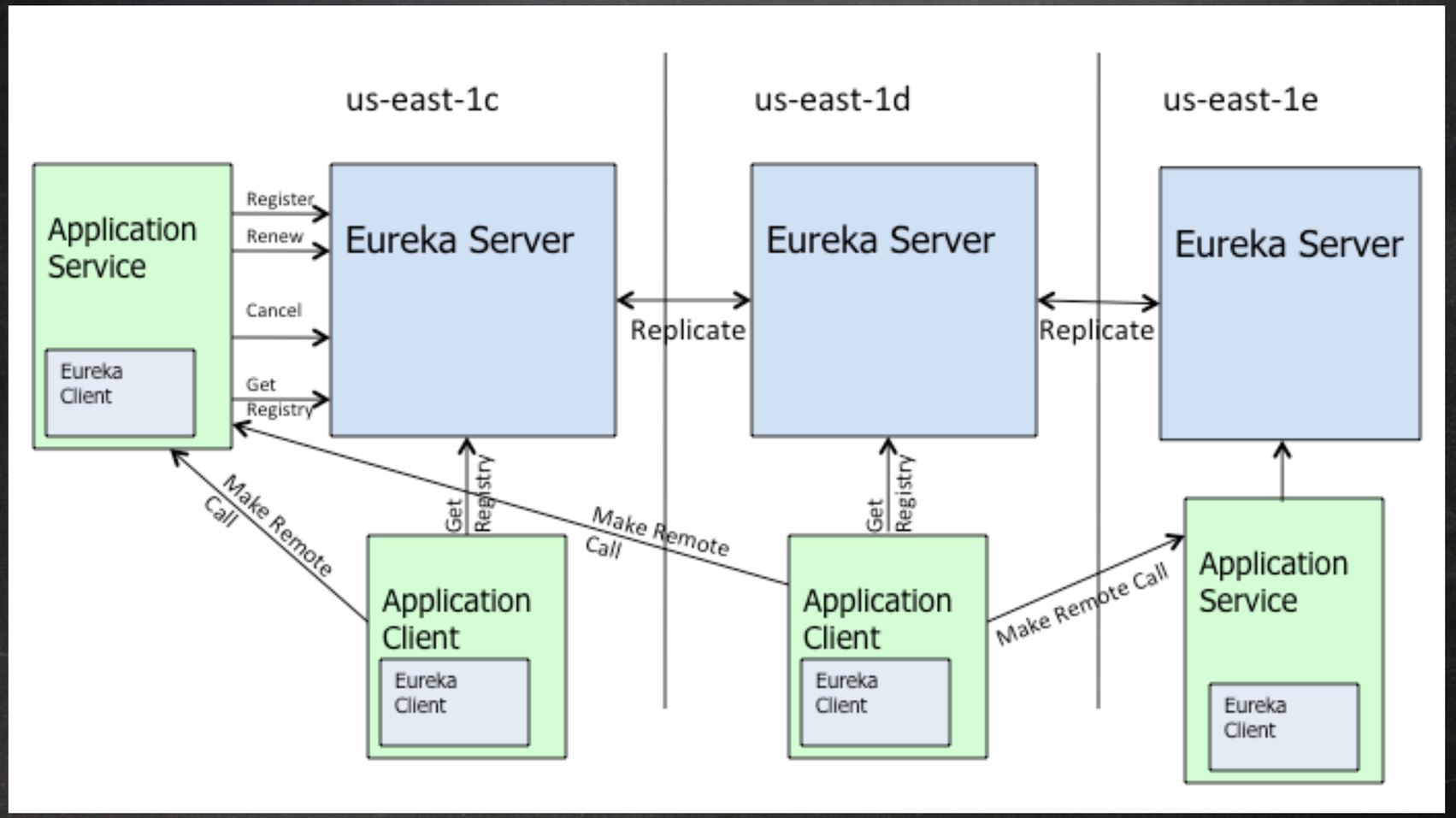
# DEMO

# NETFLIX EUREKA




spring by Pivotal

# EUREKA PRO'S

- HIGHLY-AVAILABLE
- MATURE / PROVEN BY NETFLIX
- TIGHT RIBBON INTEGRATION

spring by Pivotal

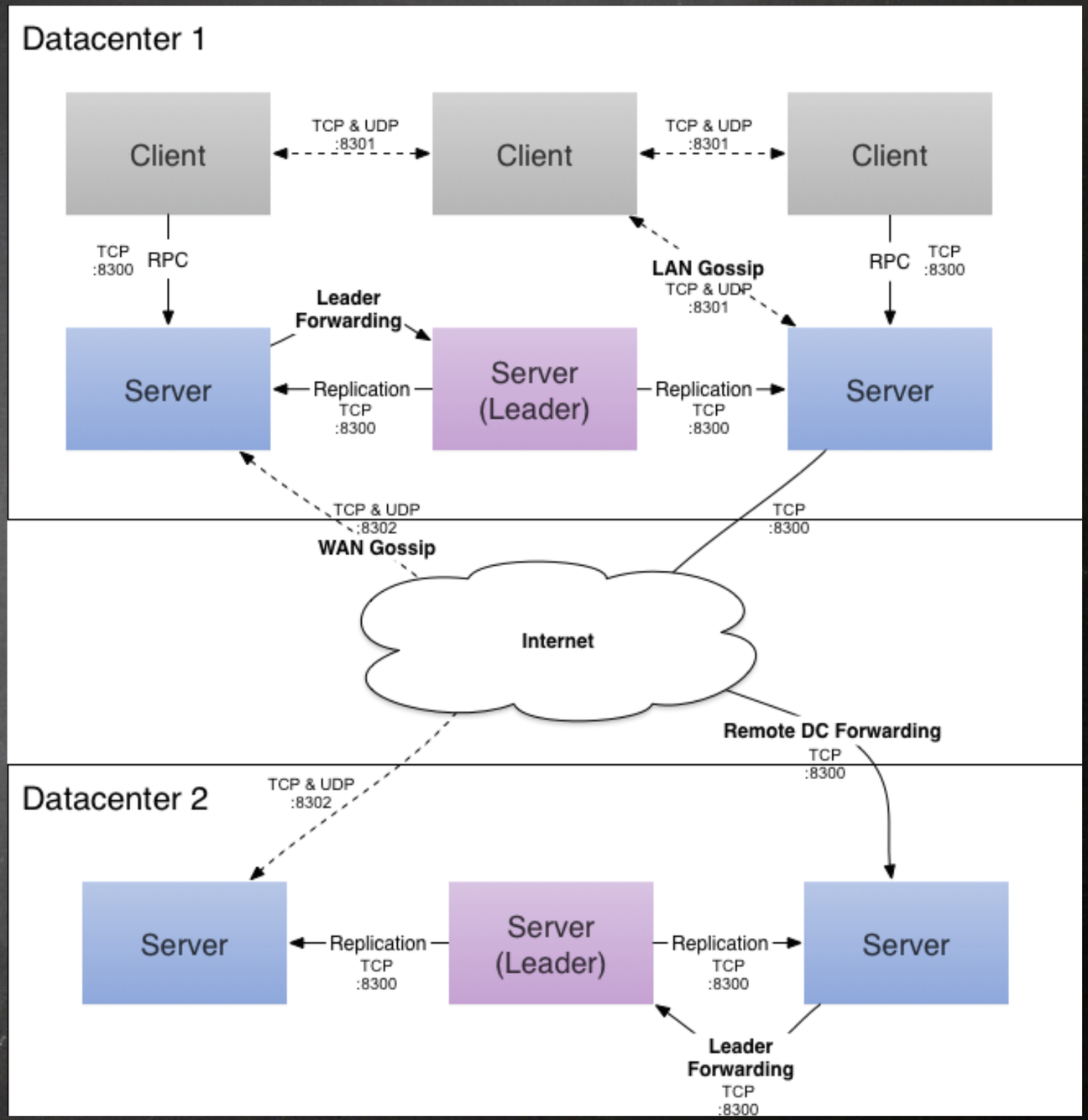
# EUREKA CON'S

- JVM BASED
- THICK JAVA CLIENT
- POLYGLOT BY SIDECAR
- BUILT FOR AWS INITIALLY
- LONG THRESHOLDS FOR REGISTRAION AND CACHE REFRESH (30S)

spring by Pivotal

# Consul

HashiCorp™




spring by Pivotal

# Consul Pro's

- Polyglot
- HTTP API and DNS interface
- ACL's
- Health checks
- Multi-datacenter
- Vault integration
- YAML and properties blobs supported
- Peer-to-peer gossip system
- Nice UI

spring by Pivotal

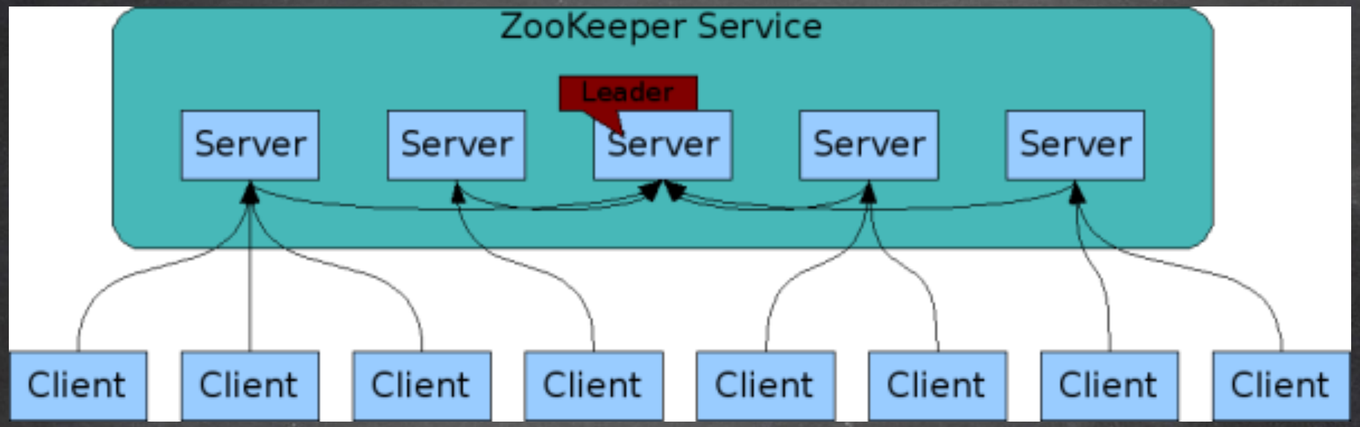
# CONSUL CON'S

- YOUNG
- AGENT ON EVERY HOST

spring by Pivotal

# DEMO

# ZOOKEEPER



spring
by Pivotal

# ZOOKEEPER PRO'S

- CONSISTENT STORE
- STARTED LIFE AS A HADOOP SUB-PROJECT (2007?)
- MATURE, USED IN MANY COMPANIES
- USEFUL IF ZK IS ALREADY PART OF YOUR INFRASTRUCTURE
- EPHEMERAL NODES / PERSISTENT CONNECTIONS
- USES APACHE CURATOR AND ITS SERVICE DISCOVERY RECIPE

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# ZOOKEEPER CON'S

- SCALE ISSUES
- OPS HEADACHES
- NEEDS MANAGEMENT PROCESS LIKE NETFLIX EXHIBITOR
- PERSISTENT CONNECTIONS

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# HONORABLE MENTION

- SPRING CLOUD CLOUDFOUNDRY
- SPRING CLOUD ETCD (EXPERIMENTAL)
- AIRBNB SMART STACK
  http://nerds.airbnb.com/smartstack-service-discovery-cloud/
- UBER HYPERBAHN
  https://youtu.be/N2472uS5Y6M - https://github.com/uber/hyperbahn

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# QUESTIONS?

PIVOTAL IS HIRING
IN ATLANTA
HTTP://PIVOTAL.IO/CAREERS

https://github.com/spencergibb/spring-cloud-star
http://spencer.gibb.us
@spencerbgibb