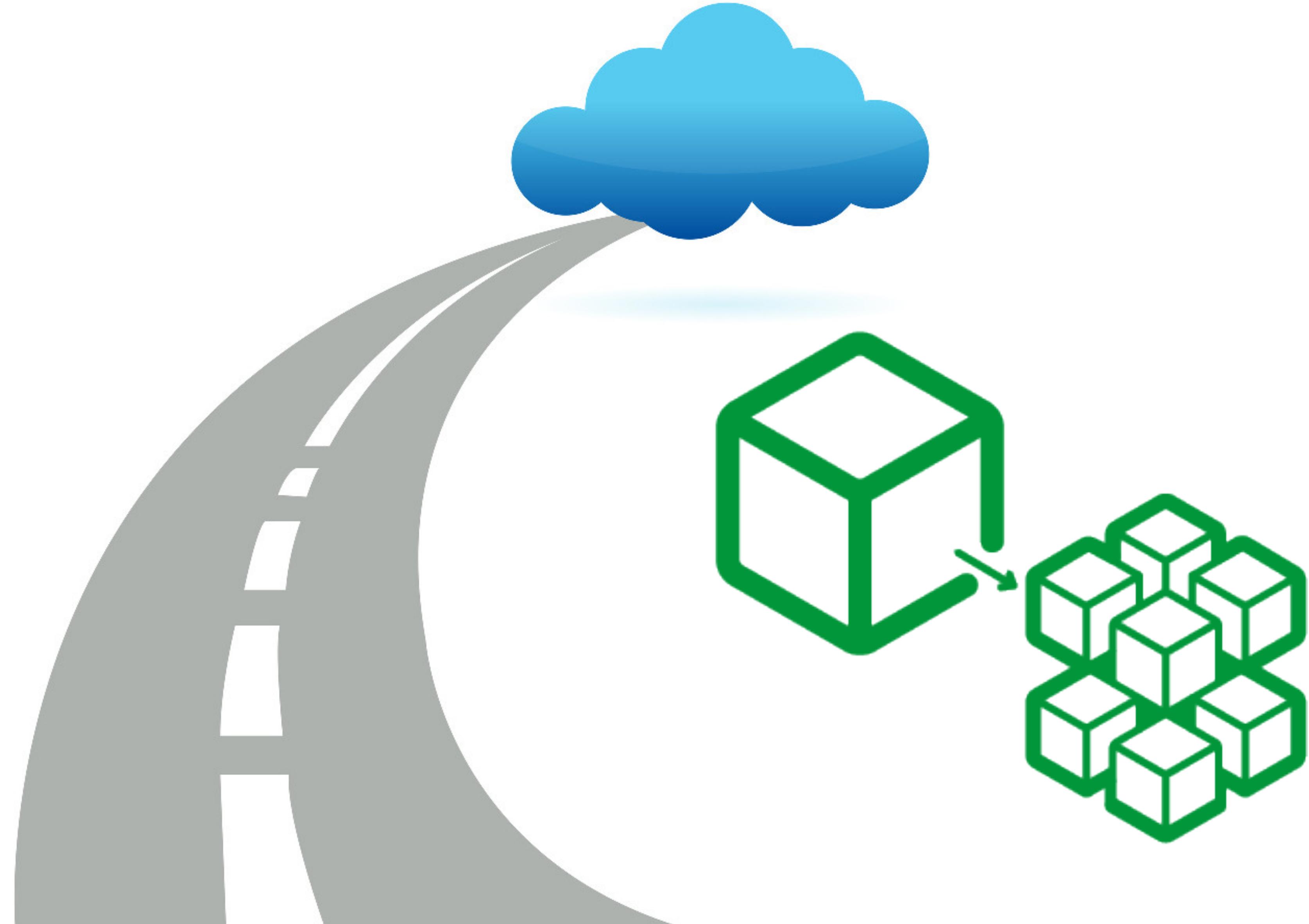
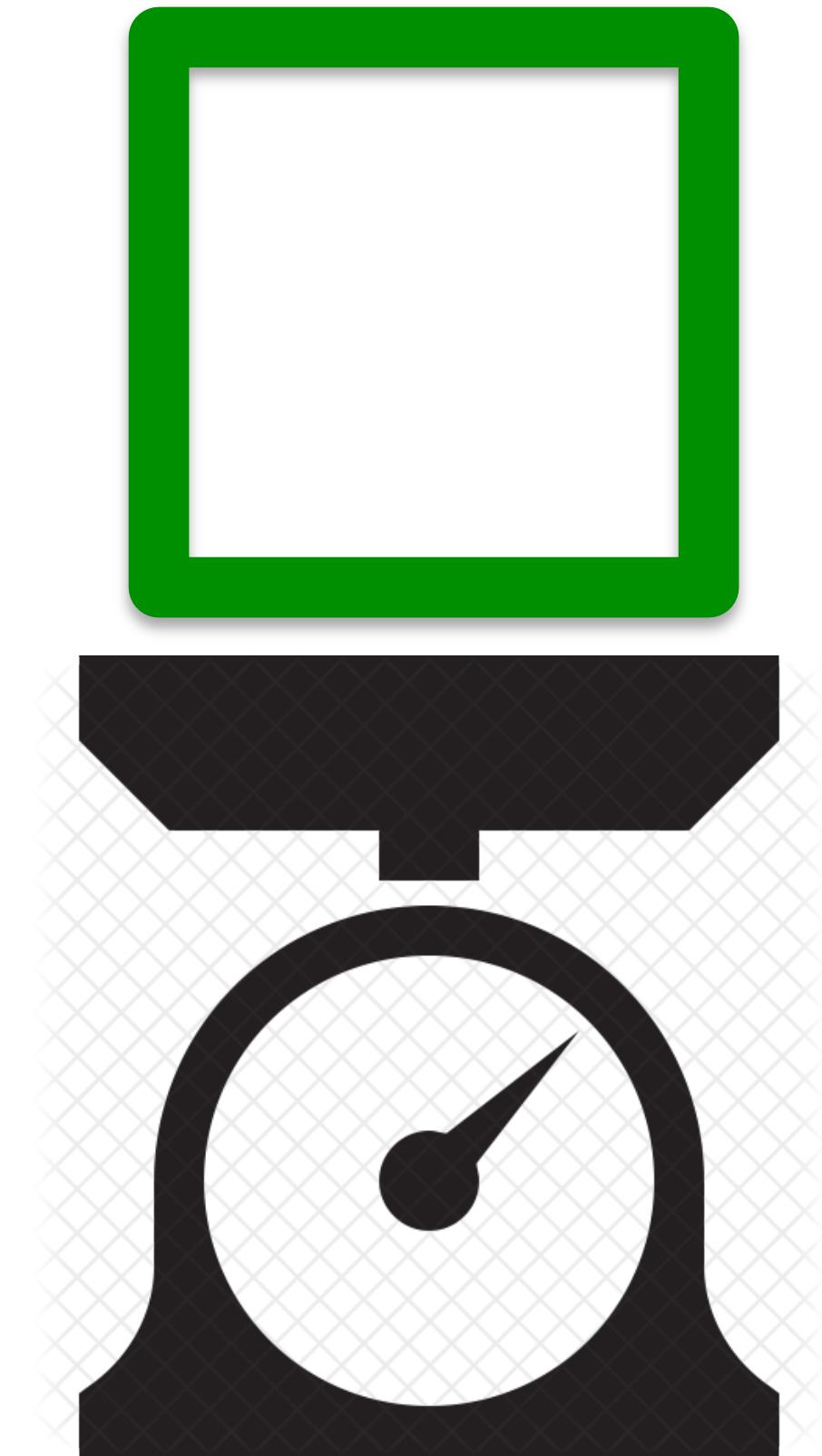


SpringOne Platform

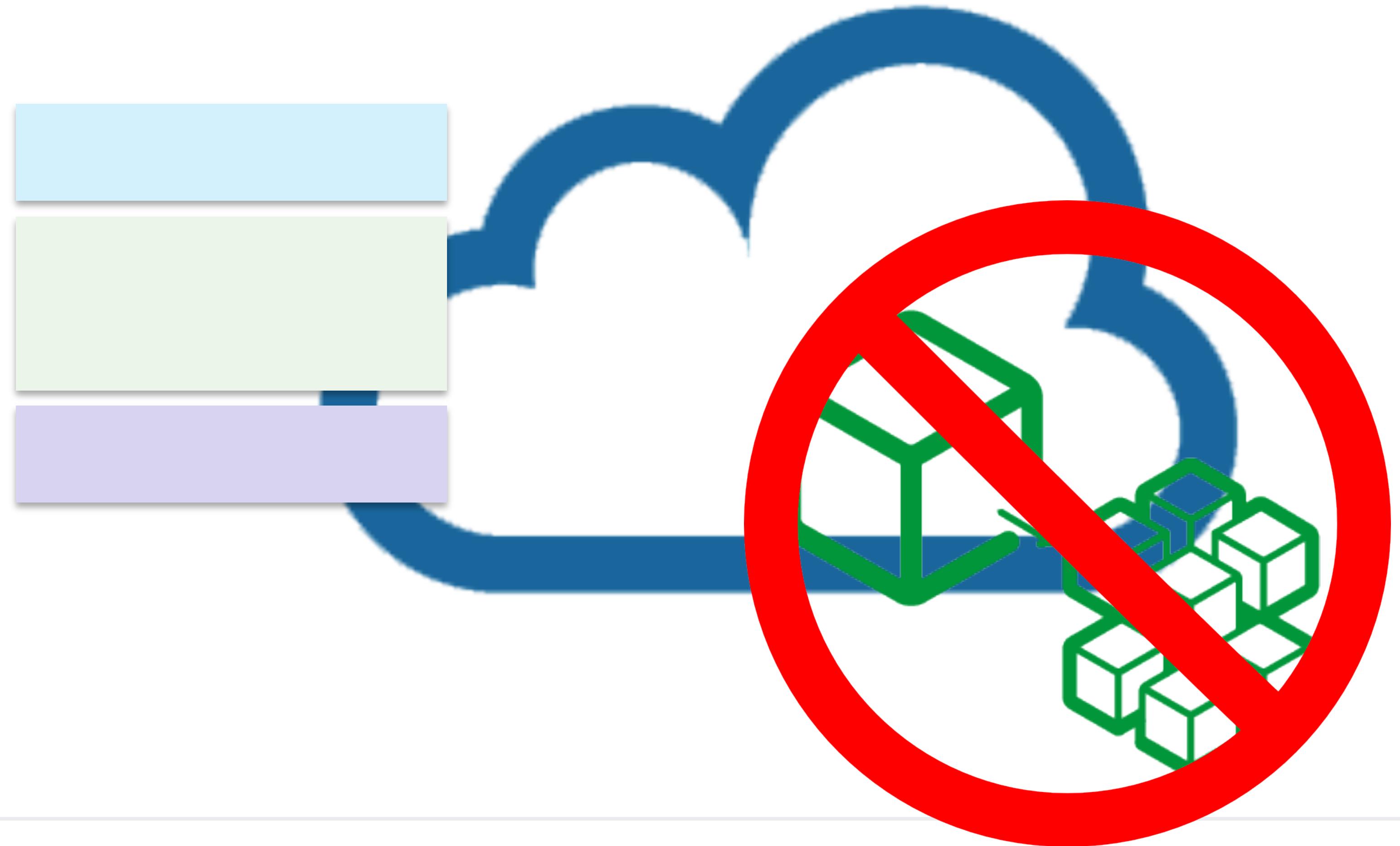
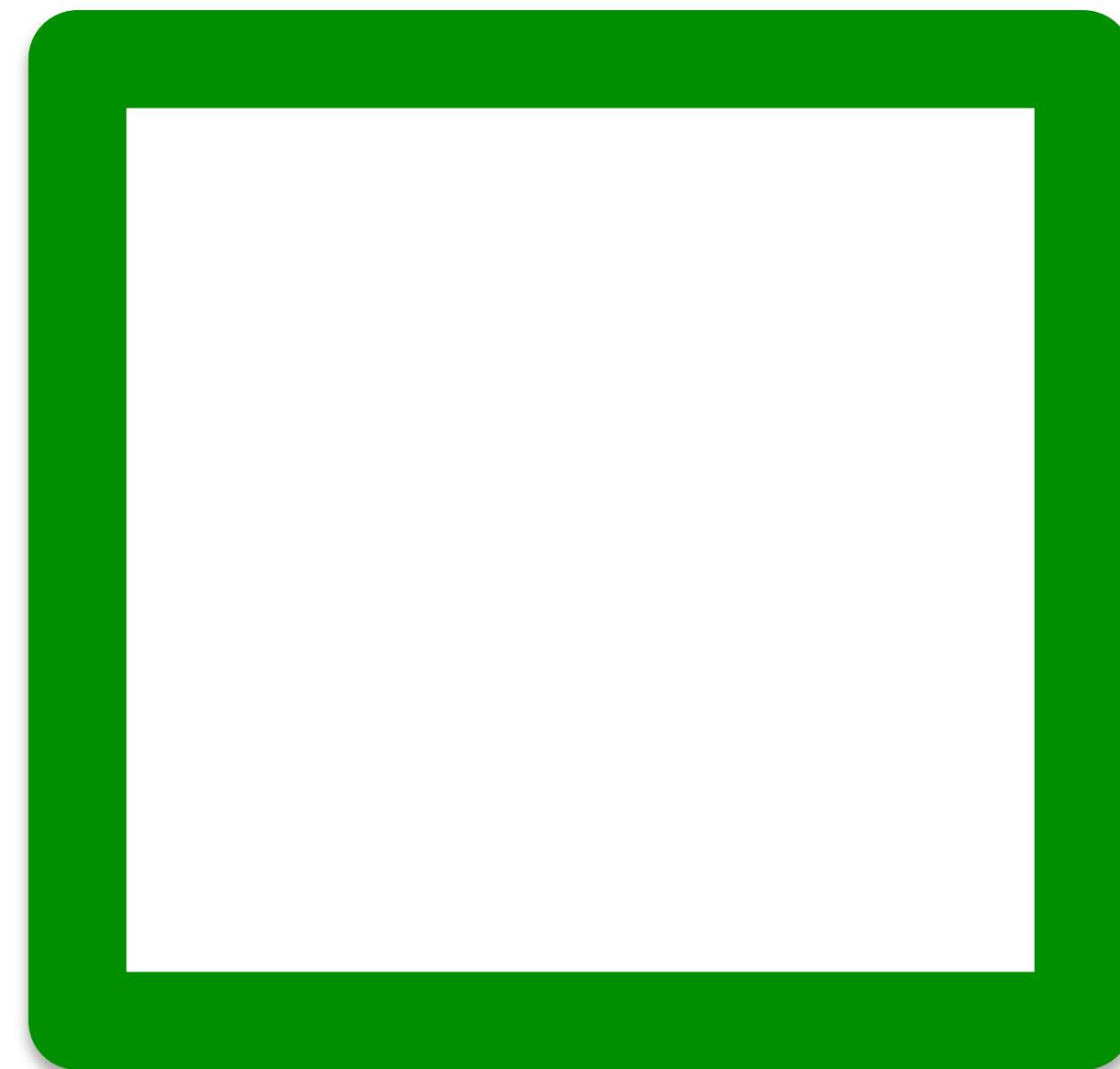
by Pivotal.

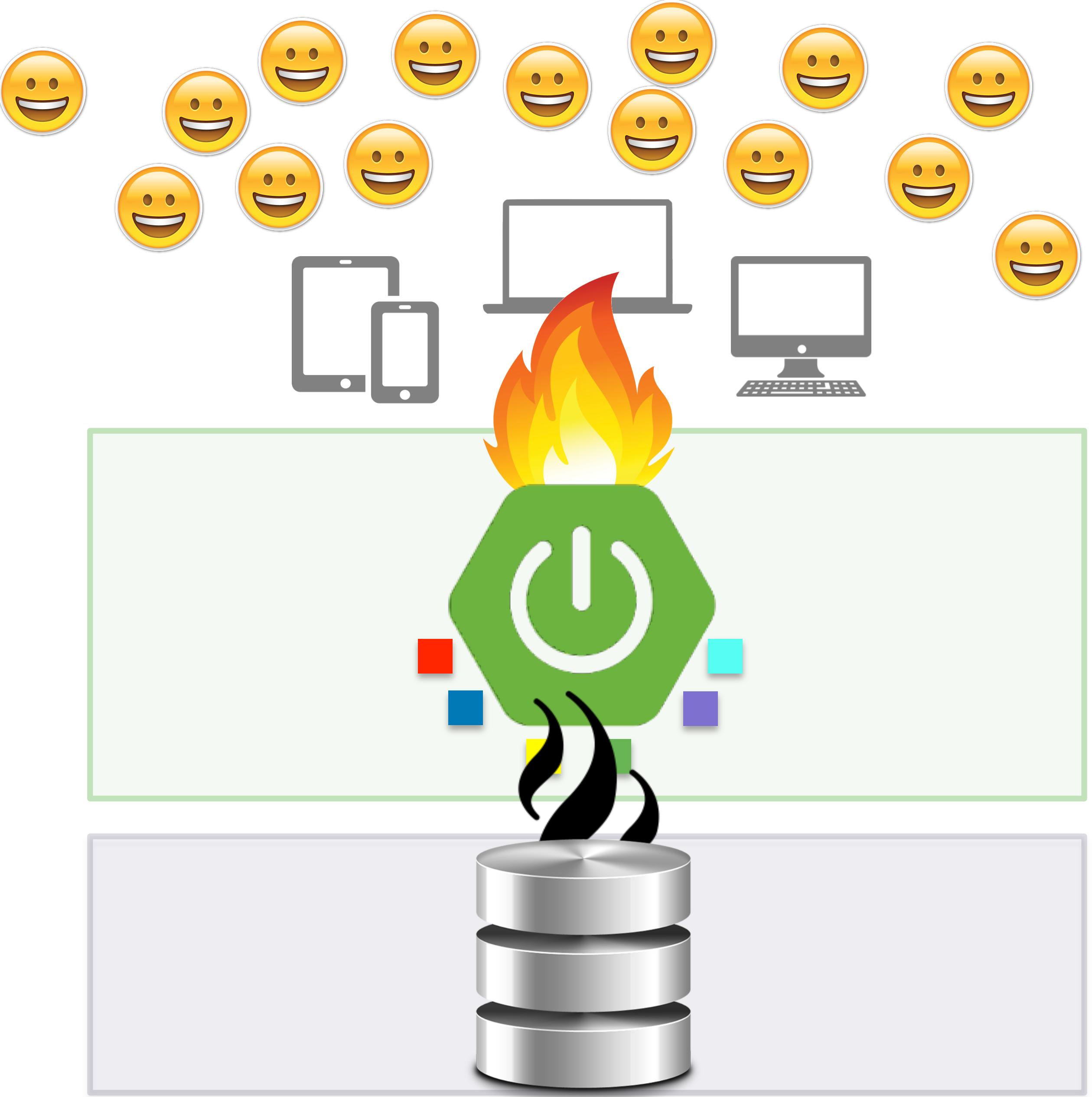
Scaling Spring Boot Applications in Real-Time

By John Blum & Luke Shannon
[@john_blum](https://twitter.com/john_blum) & [@lukewshannon](https://twitter.com/lukewshannon)







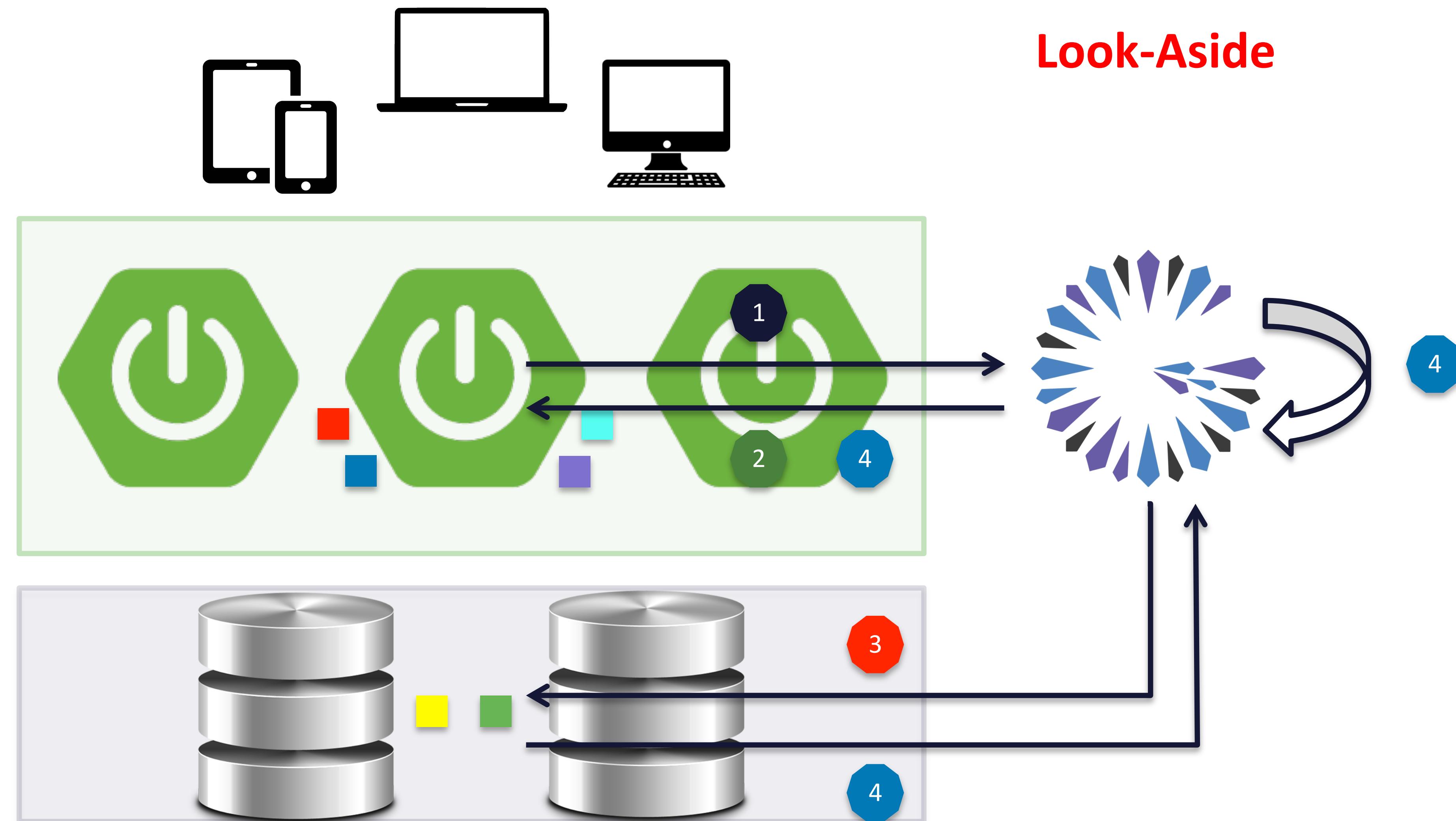






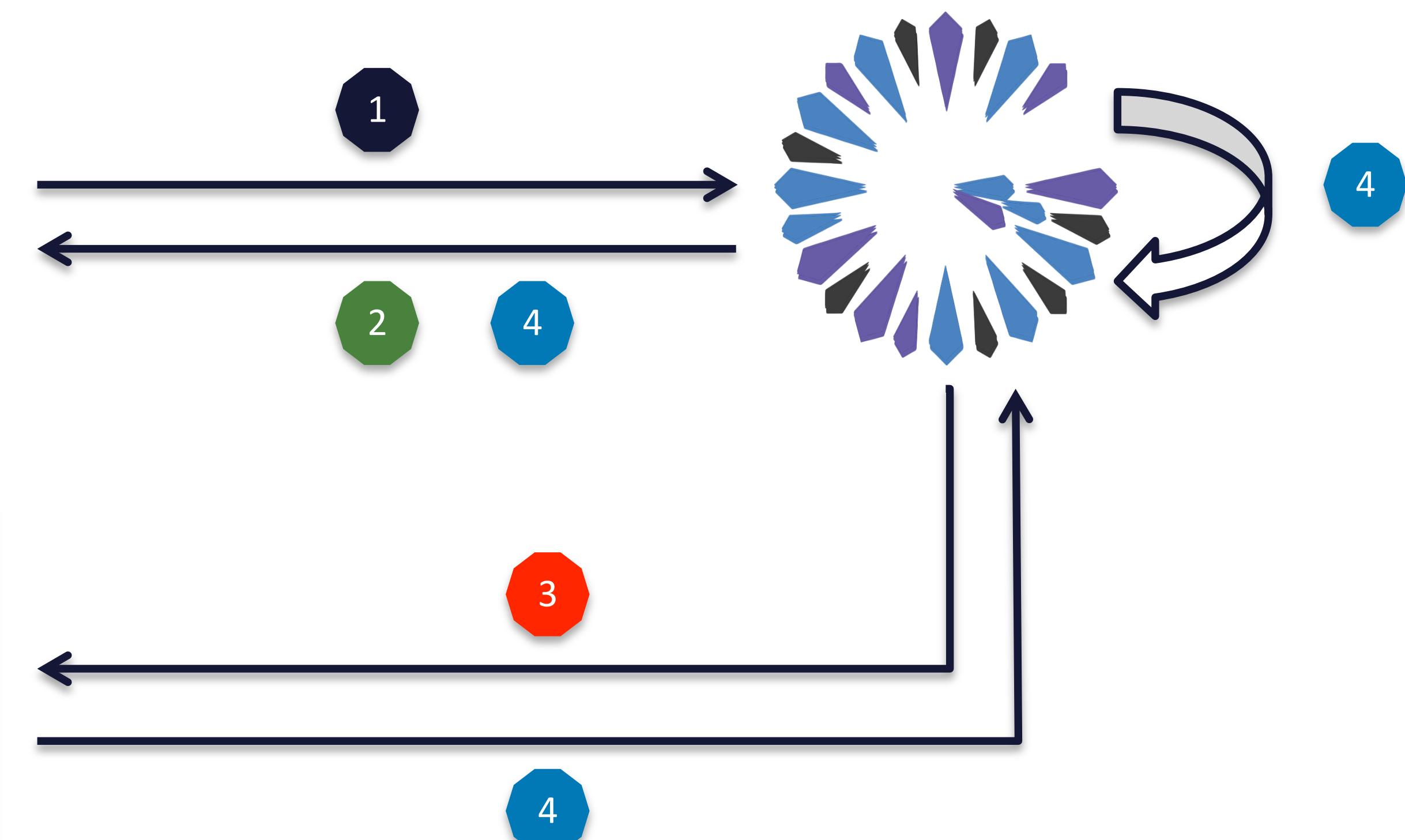
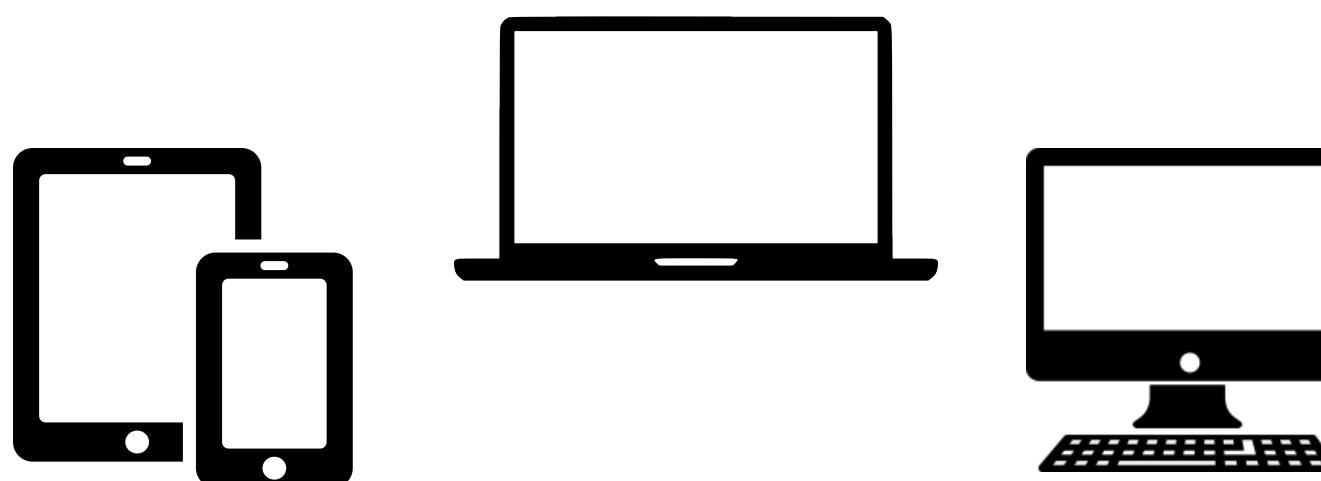
CACHING

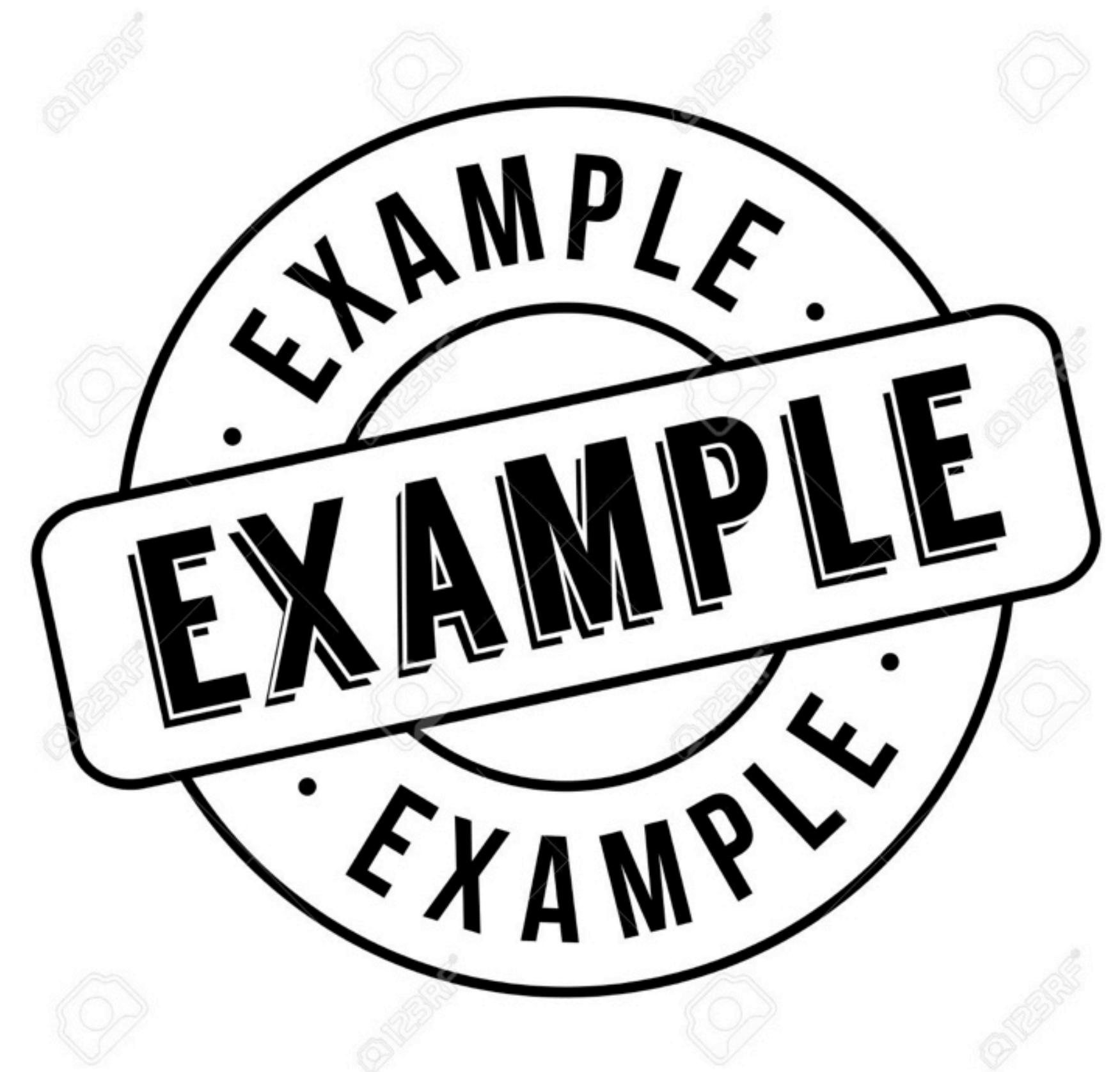
Look-Aside



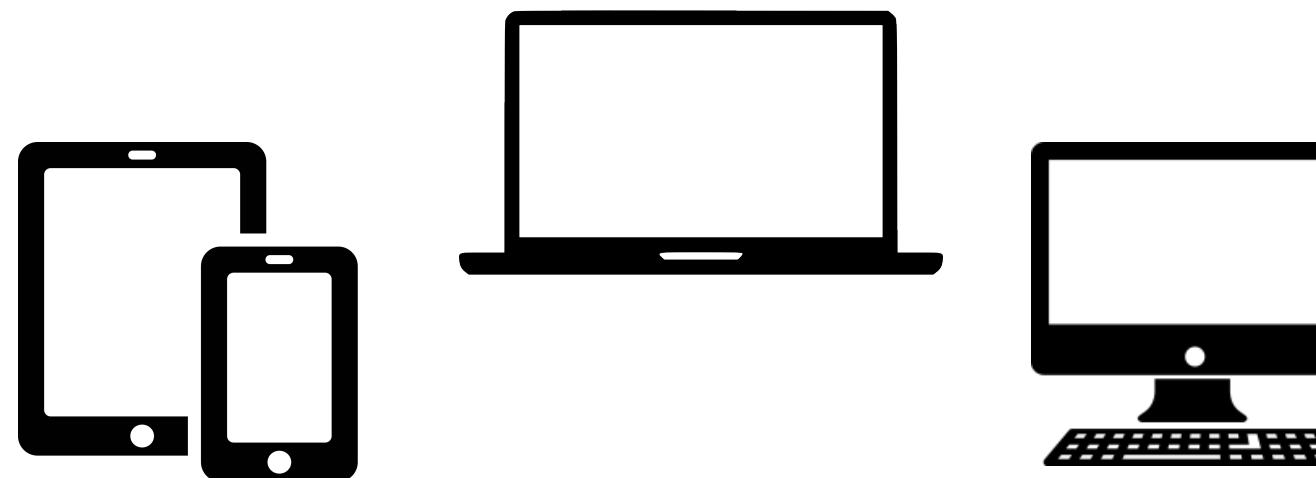
CACHING

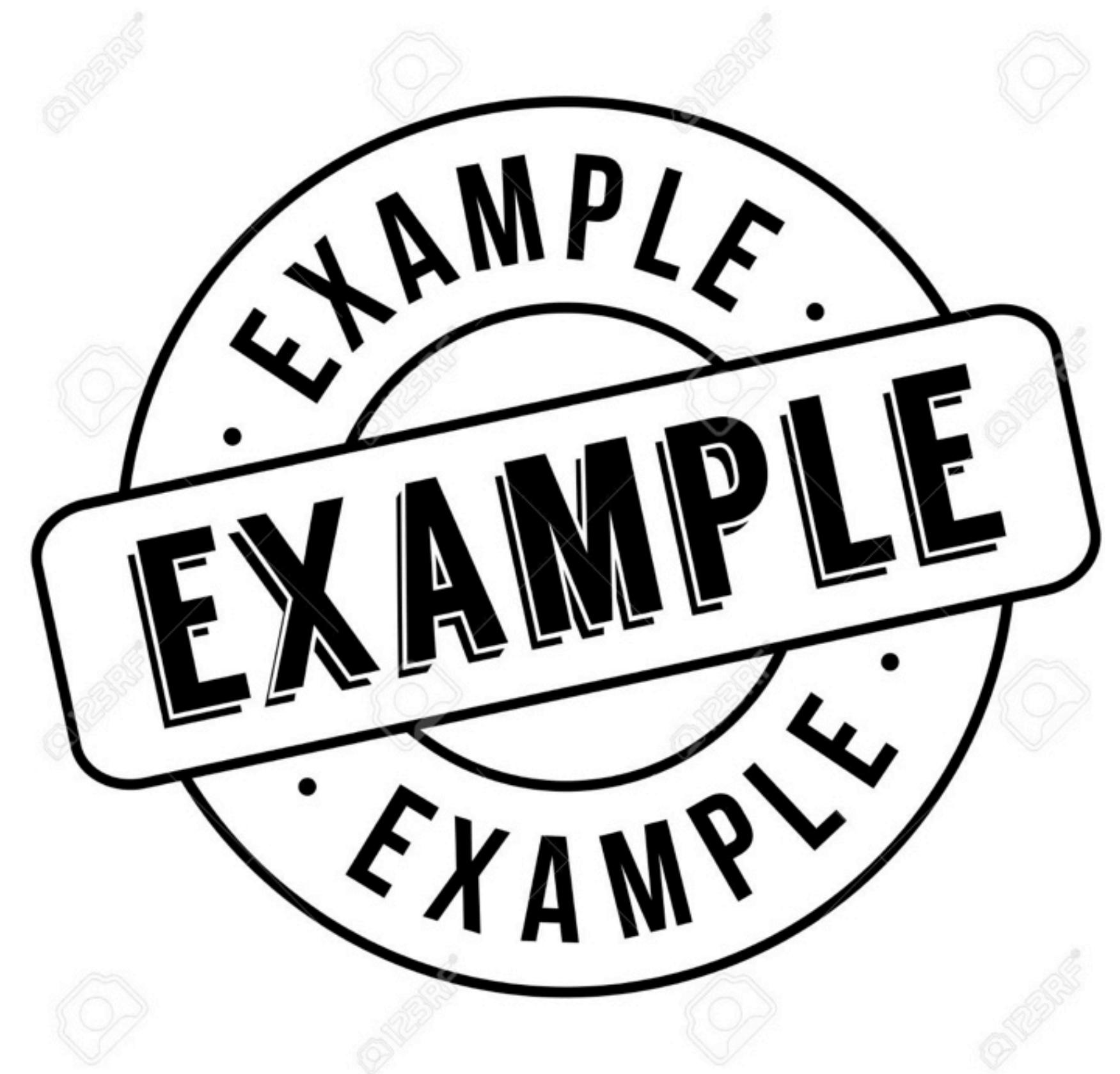
Look-Aside
Near Caching





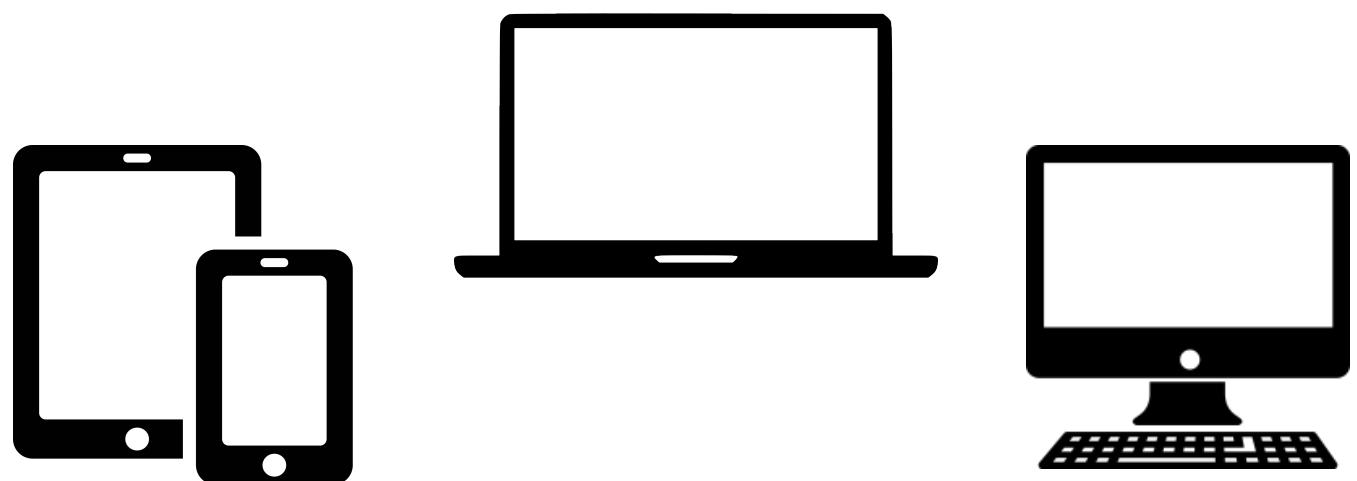
Distributed Compute Functions



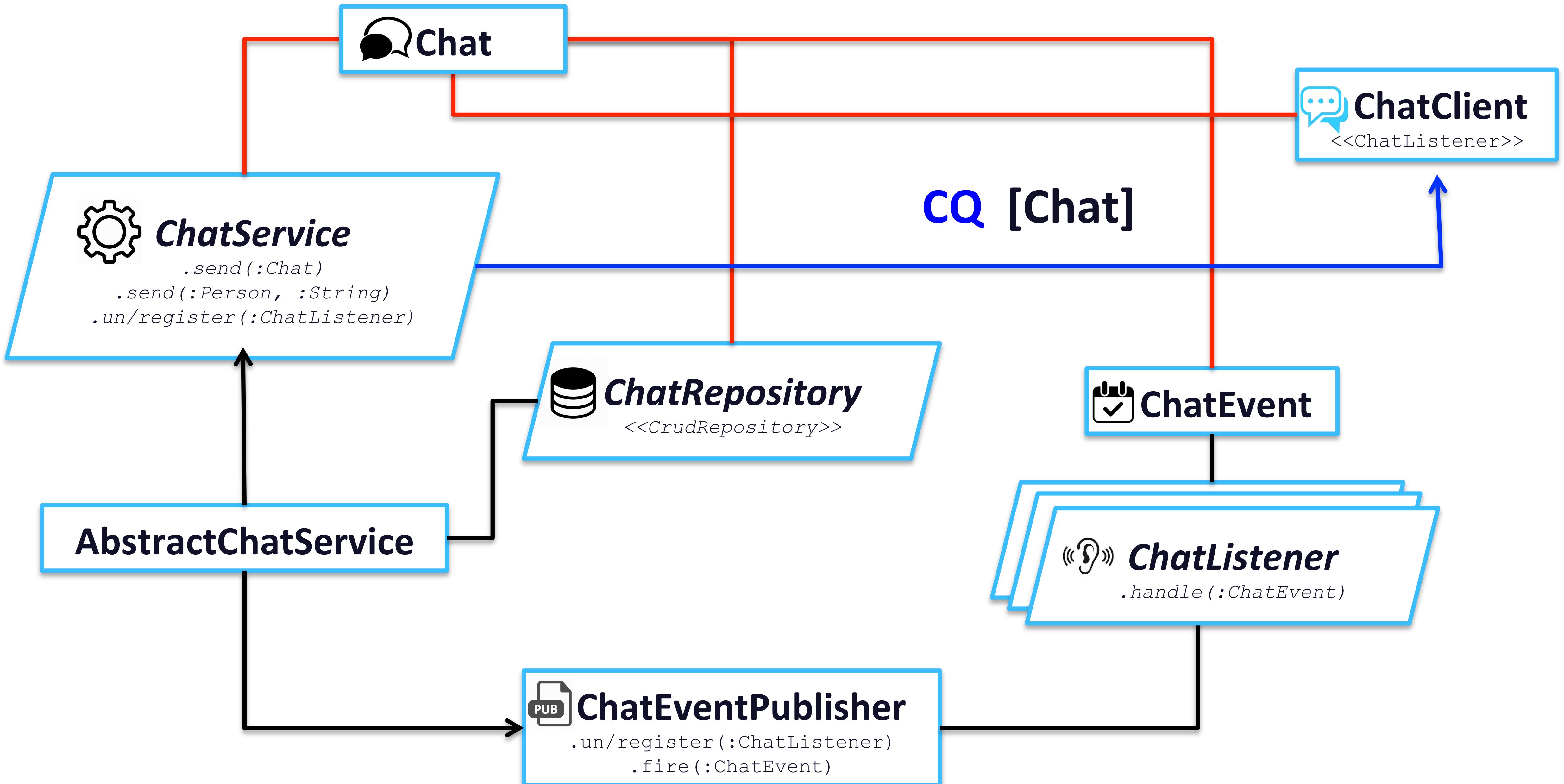


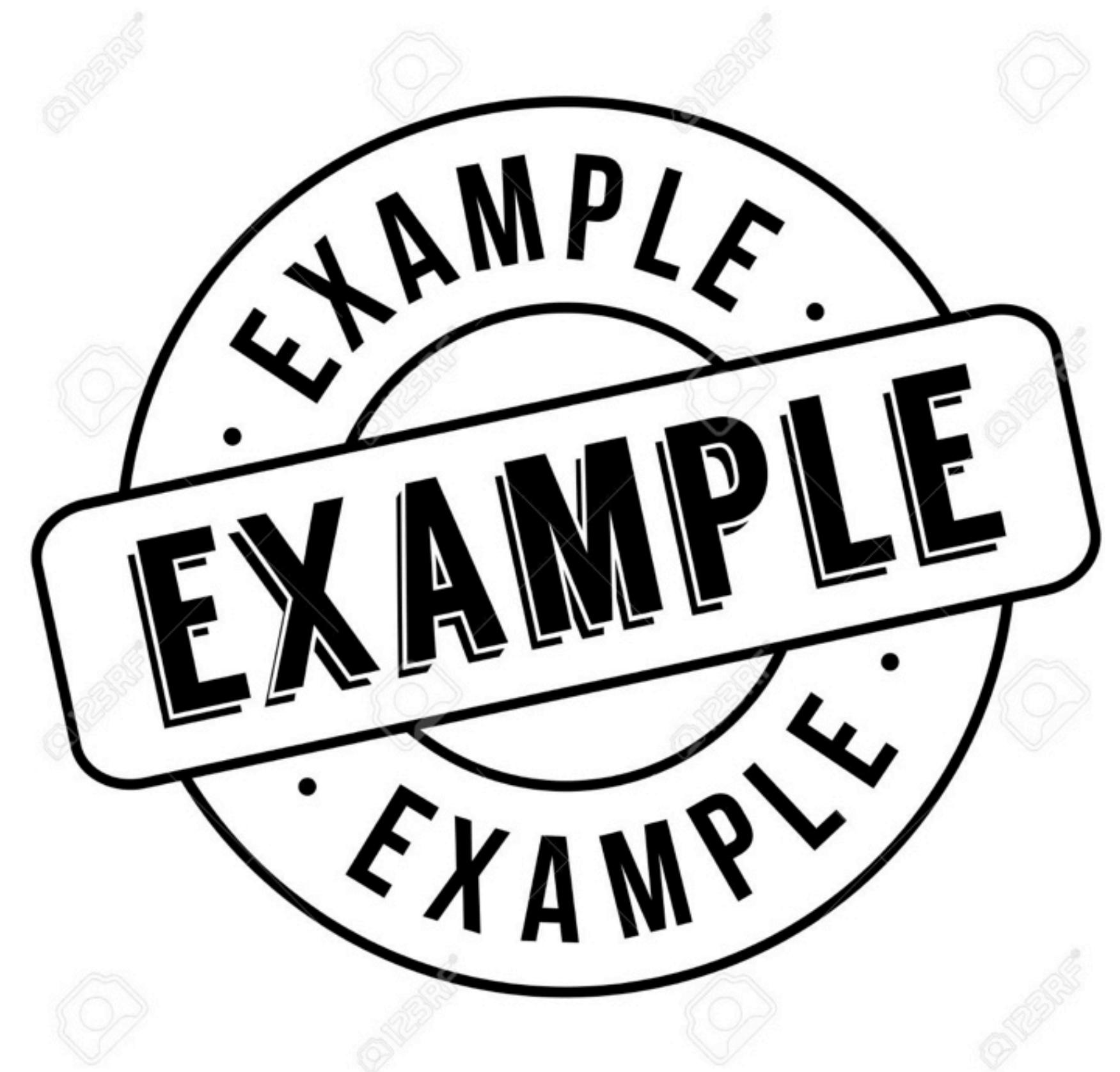
Scaling

Horizontal

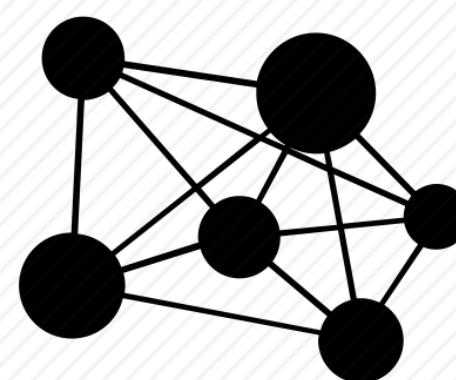


- Read/Write-Through [SYNC]
- Write-Behind [ASYNC]
- Single-Hop Data Access
- Multi-Site [WAN]
- Continuous Query [CQ]





Cloud-Native Data Patterns



In-Memory...

fast (low / predictable latency) access to data



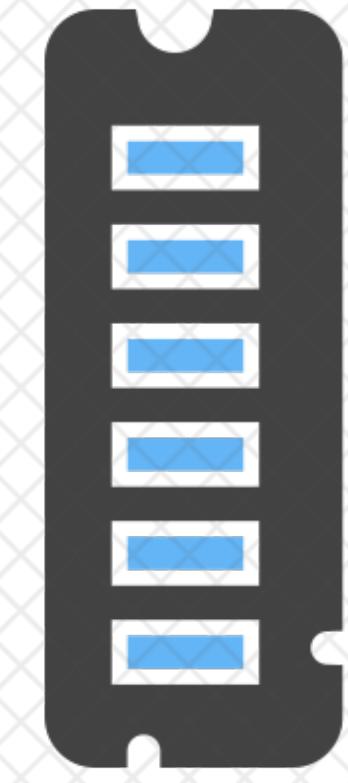
Expiration



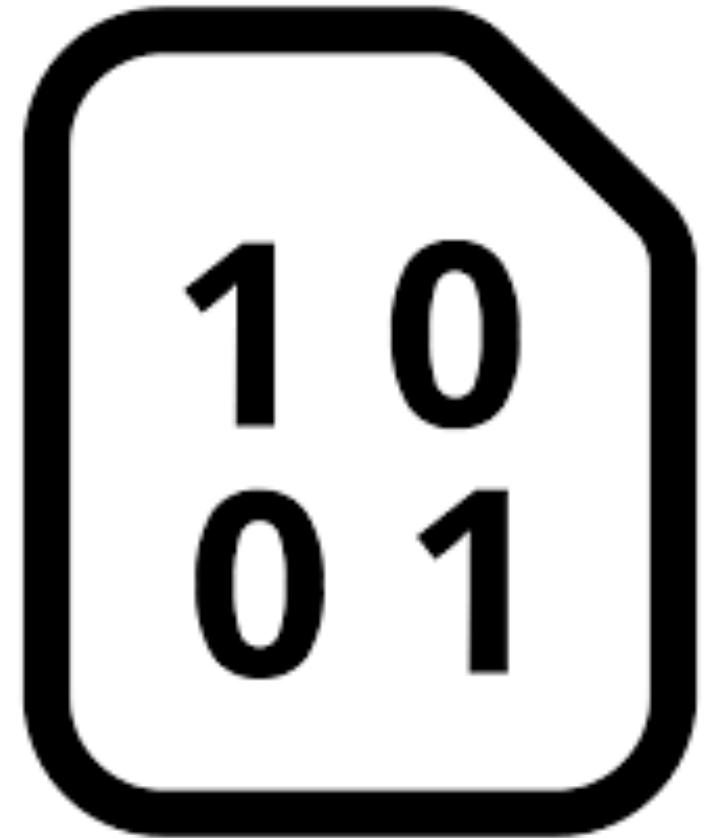
Eviction
(Overflow)



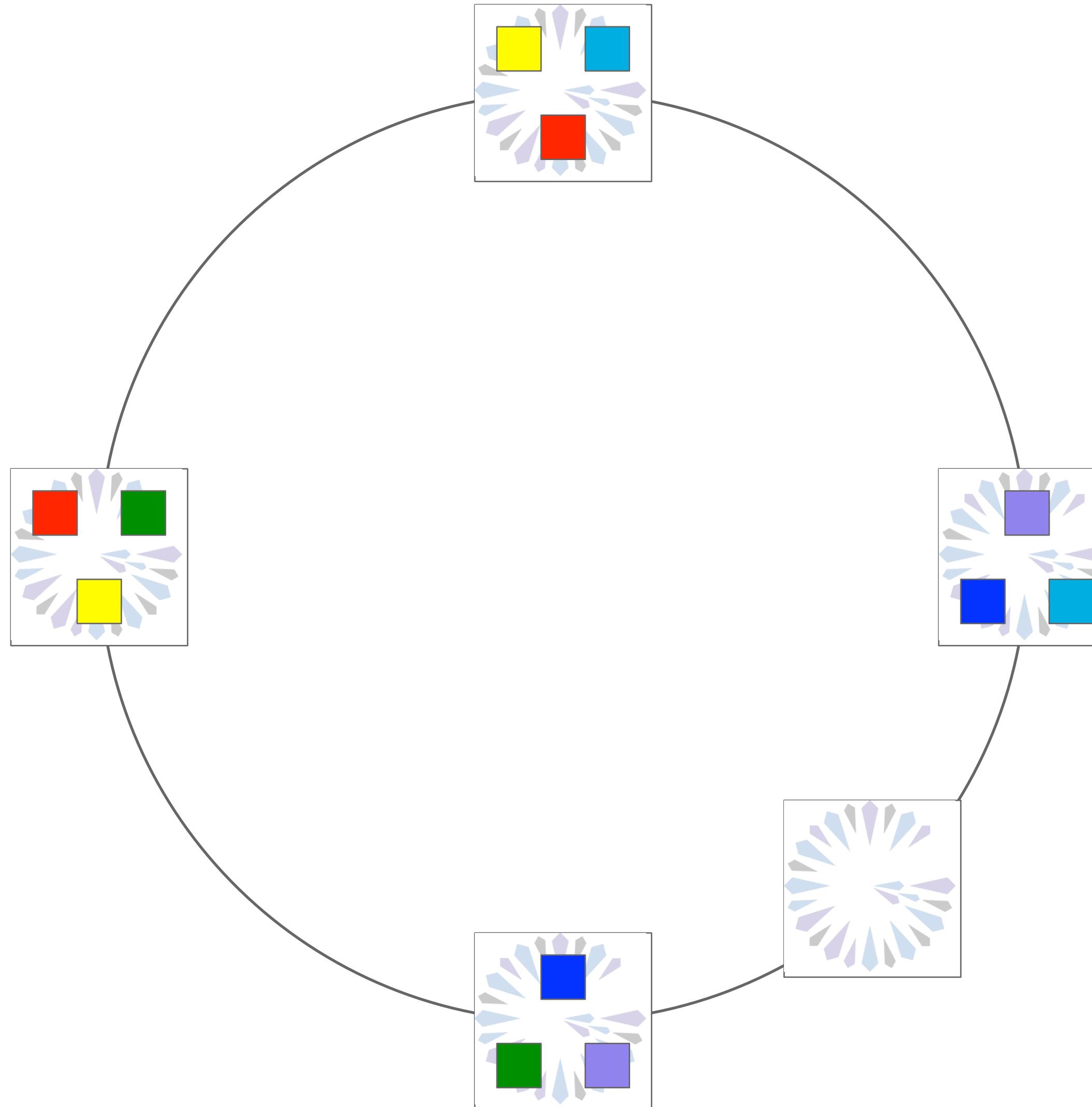
Compression



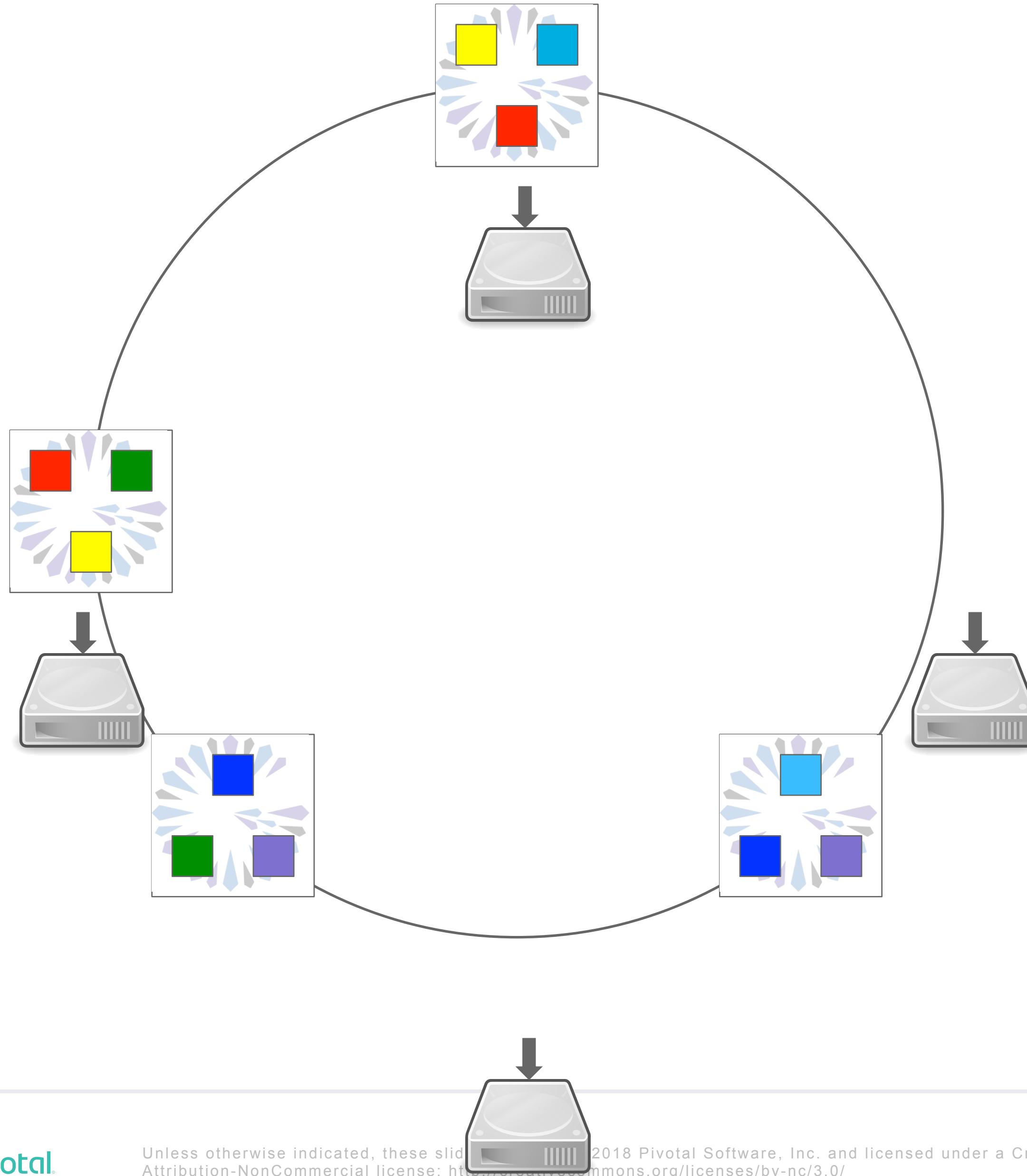
Main Memory

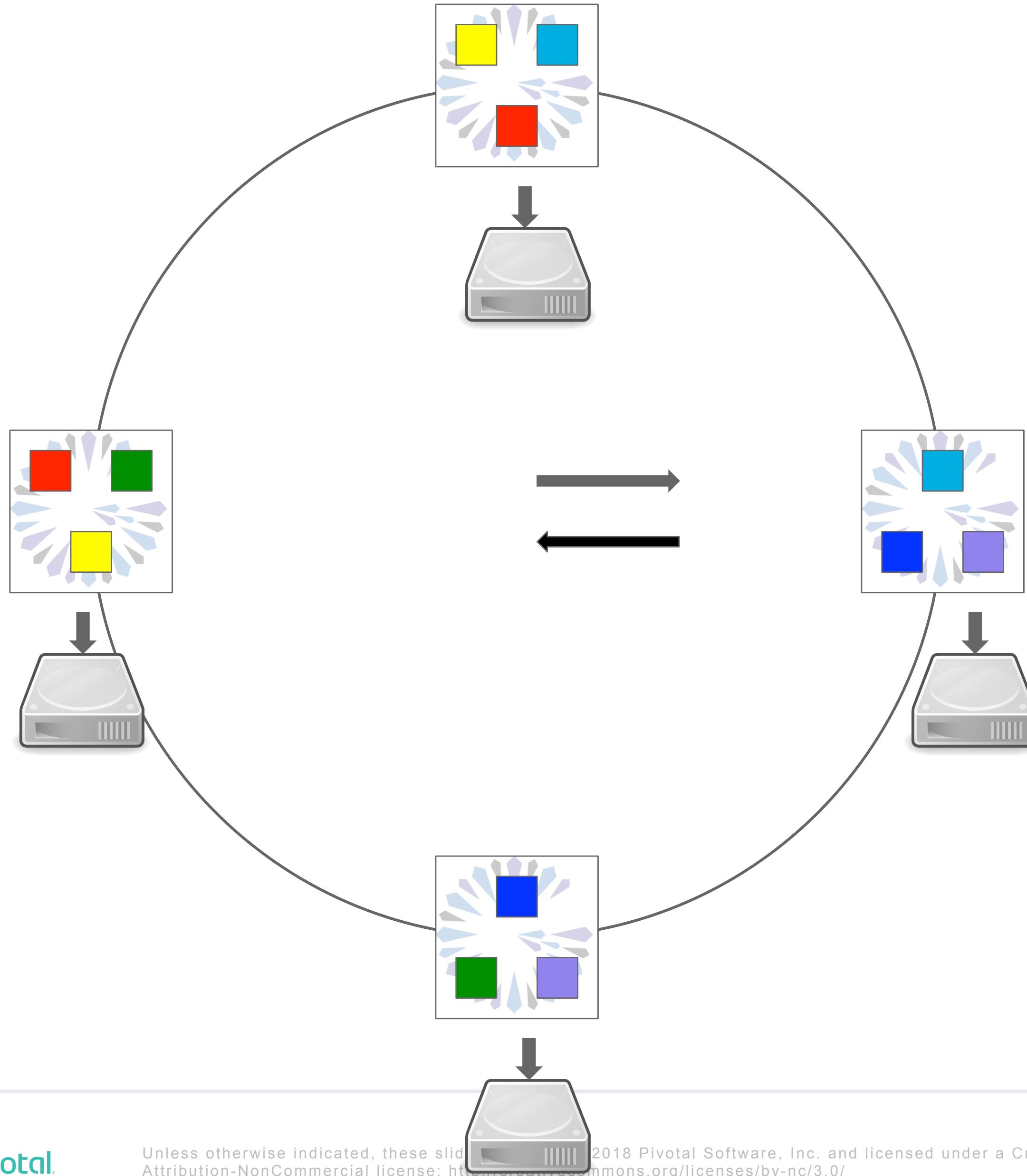


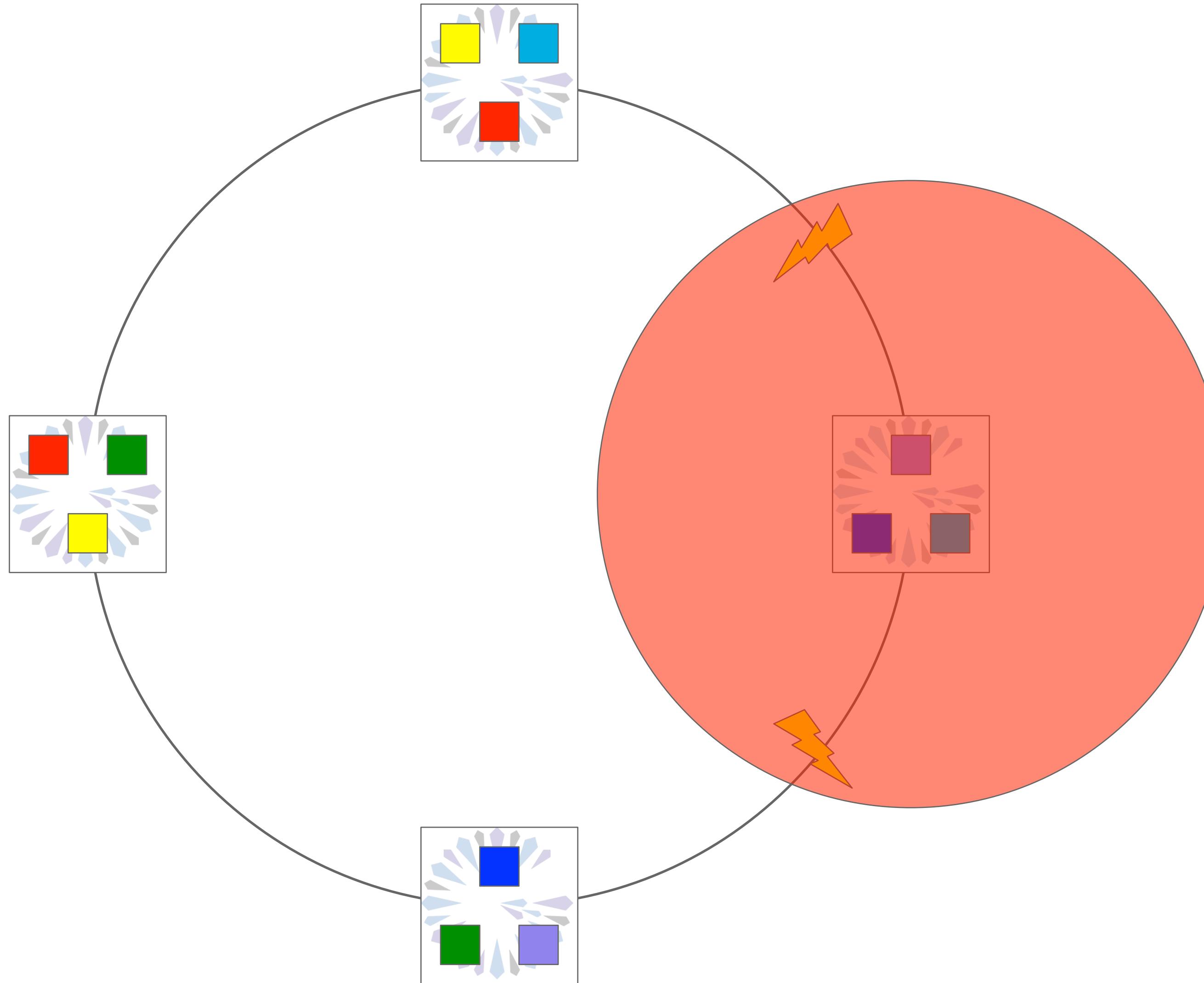
Serialization











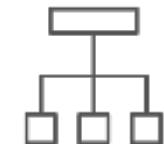
Real-Time



In-Memory



Distributed



Linearly Scalable

Highly Available



Queries/Indexes

Events/Continuous Query

Functions



Transactions

Serialization

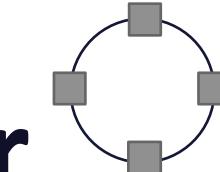
Secure



Big/Fast Data



Multi-Cluster



P2P



High Throughput



Low/Predictable Latency

Replication

Resilient/Fault Tolerant

Partitioned

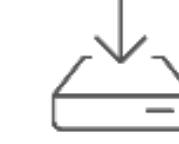


Durable

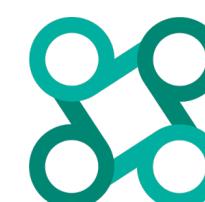
Client/Server



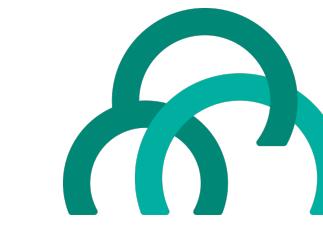
Persistent



Shared Nothing Architecture



Cloud-Native Technology

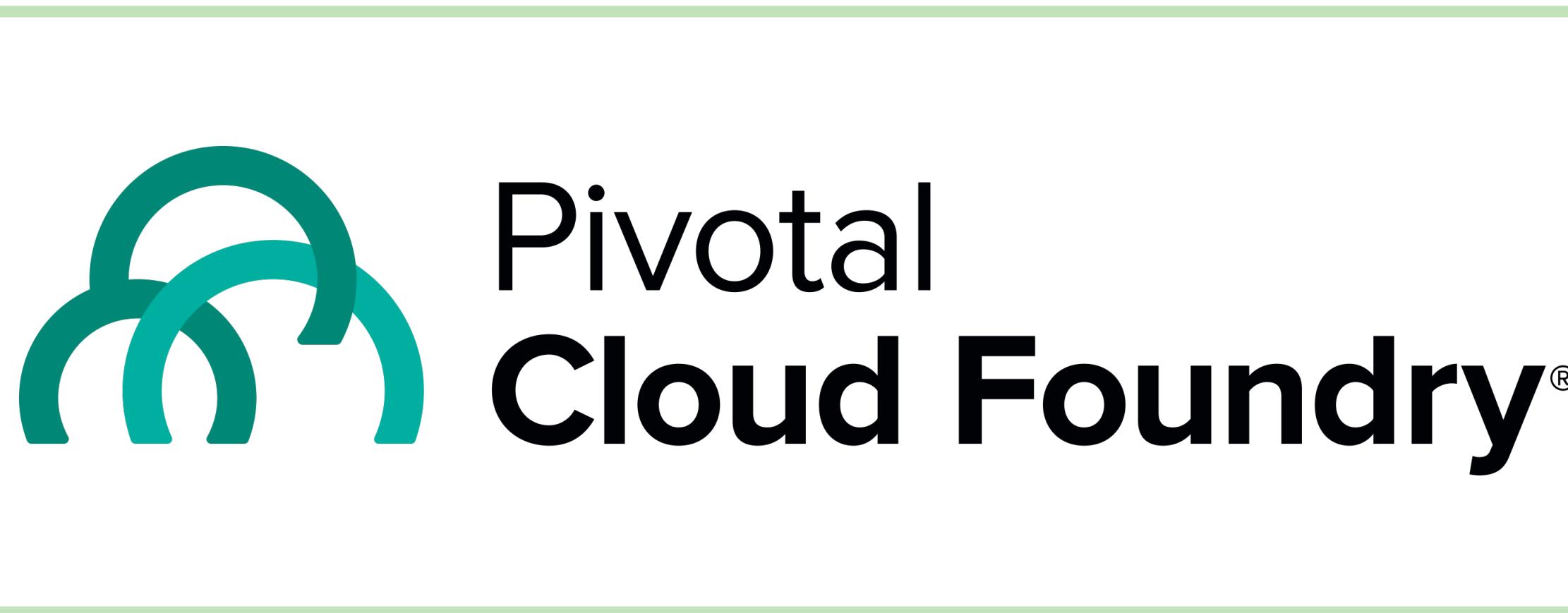
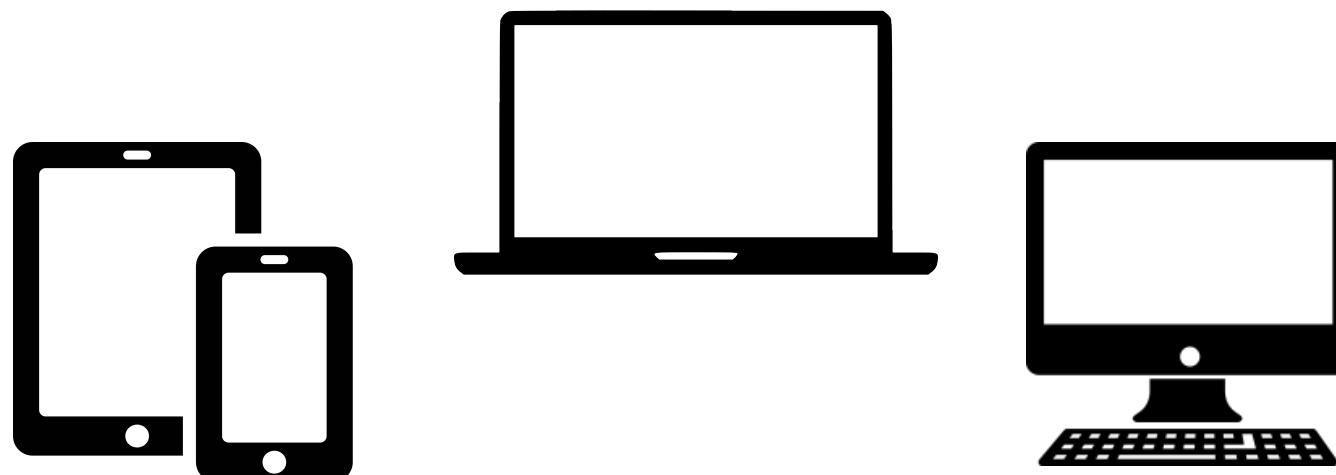


Pivotal
Cloud Foundry[®]

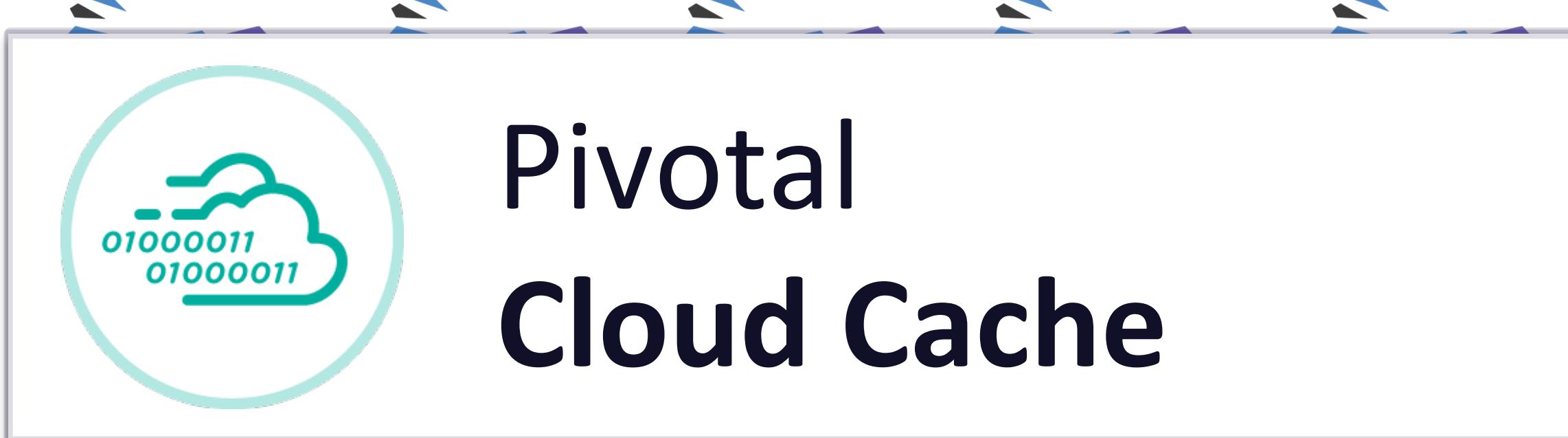


Scaling

Managed Environment



The Pivotal Cloud Foundry logo features a teal cloud icon composed of three curved segments above the text "Pivotal Cloud Foundry®".



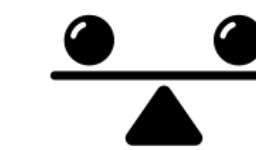
The Pivotal Cloud Cache logo features a teal cloud icon with binary code "01000011" inside it, above the text "Pivotal Cloud Cache".



- Scalability



- Speed



- Stability



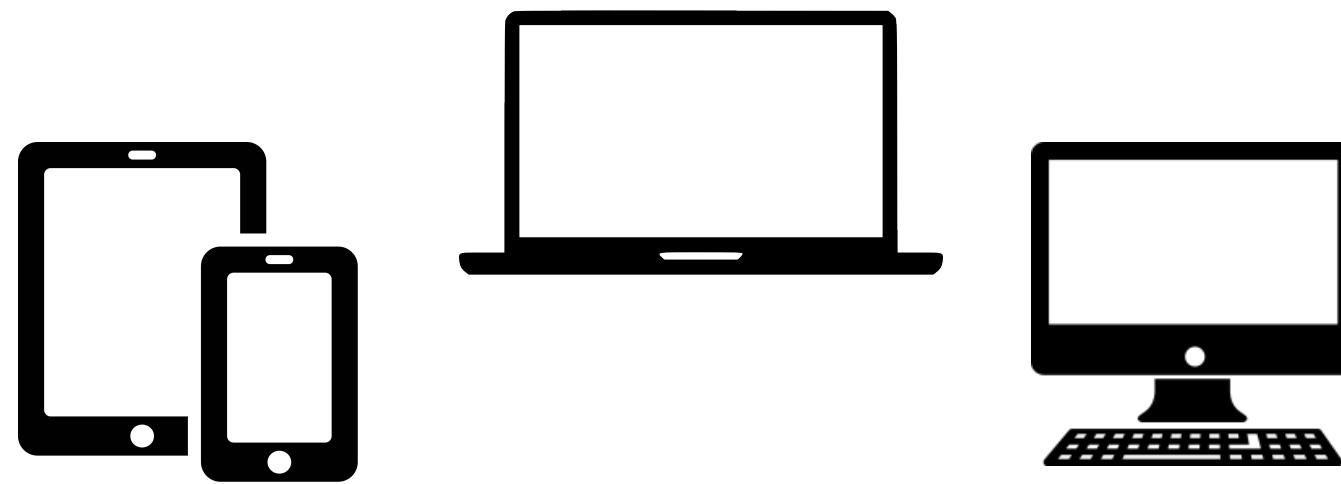
- Security



- Savings

Scaling

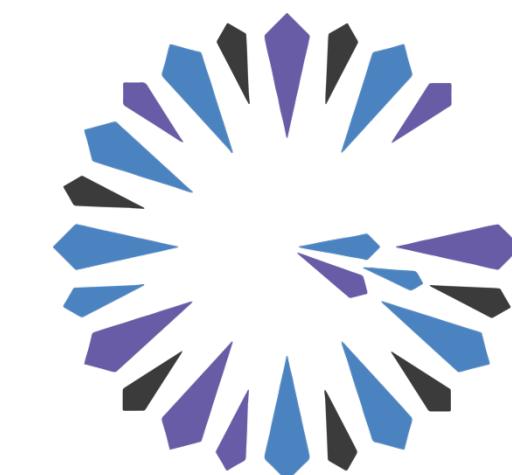
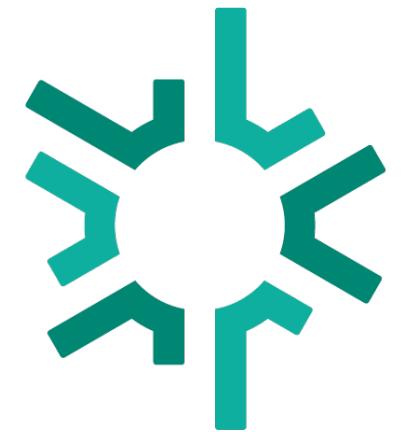
Managed Environment



Pivotal Cloud Foundry®



Pivotal Cloud Cache



Apache Geode

References

- ✧ Spring Cache Abstraction
 - ✧ <https://docs.spring.io/spring/docs/current/spring-framework-reference/integration.html#cache>
- ✧ Spring Data for Apache Geode/Pivotal GemFire
 - ✧ <https://projects.spring.io/spring-data-gemfire/>
- ✧ Spring Boot for Apache Geode/Pivotal GemFire
 - ✧ <https://github.com/spring-projects/spring-boot-data-geode#spring-boot-for-apache-geode--pivotal-gemfire>
- ✧ Spring Session for Apache Geode/Pivotal GemFire
 - ✧ <https://github.com/spring-projects/spring-session-data-geode#spring-session-for-apache-geode--pivotal-gemfire>
- ✧ Spring Test for Apache Geode/Pivotal GemFire
 - ✧ <https://github.com/spring-projects/spring-test-data-geode#spring-test-framework-for-apache-geode--pivotal-gemfire>
- ✧ Pivotal Cloud Cache
 - ✧ <https://pivotal.io/platform/services-marketplace/data-management/pivotal-cloud-cache>
- ✧ Apache Geode
 - ✧ <http://geode.apache.org/>
- ✧ Source Code
 - ✧ <https://github.com/jxblum/scaling-springbootapplications-realtime-2018>

SpringOne Platform

by Pivotal

> Stay Connected.

<Sept. 26 * 5:40 – 6:40 pm * National Harbor 4-5>

<Event Driven Architectures with Apache Geode and Spring Integration>



@s1p

#springone

SpringOne Platform

by Pivotal

> Stay Connected.

<Sept. 25 * 5:40 – 6:40 pm * National Harbor 4-5>

<Metrics for the Masses>



@s1p

#springone



