

5k Serverless Microservices: with Kotlin, Kafka Kubernetes, KNative and Kong



Infoshare, Gdansk, PL, 2022

@gamussa | @infosharepl | @thekonginc

What is Serverless?

What is Serverless?

«OH: It's just someone's else
computer 🤪»

Wh



ss?

VIKTOR GAMOV



@gamussa | #infoshare2022 | @thekonginc

VIKTOR GAMOV

- Principal Developer Advocate @ **Kong**



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- **Confluent** Community Catalyst



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- Principal Developer Advocate @ **Kong**
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- Java Champion



VIKTOR GAMOV

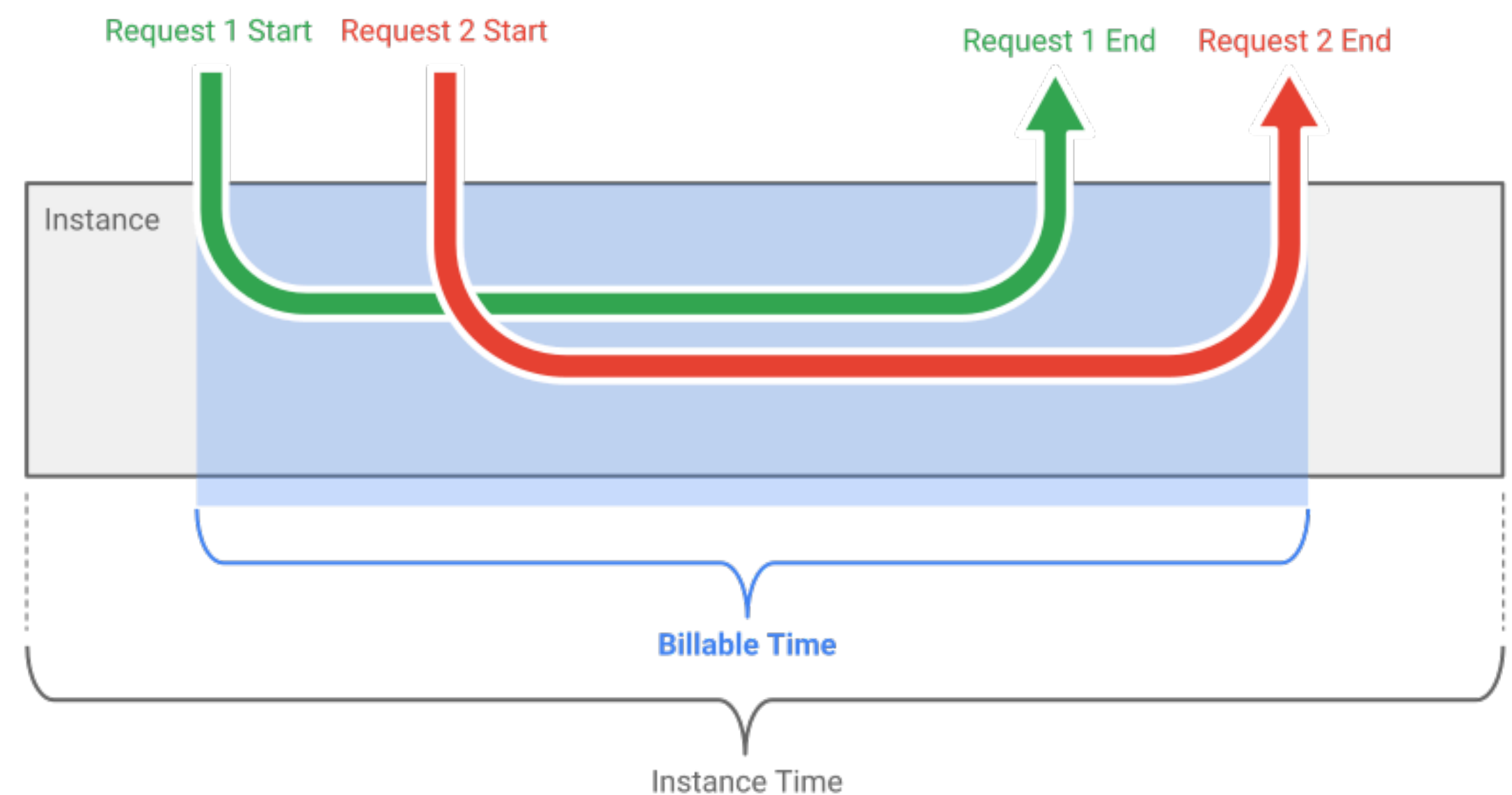
- Principal Developer Advocate @ **Kong**
- **Confluent** Community Catalyst
- Java Champion
- Author @ **Manning**



I BUILD HIGHLY SCALABLE
AND HIGHLY AVAILABLE
HELLO WORLD
APPLICATIONS 🤡

What is Serverless?

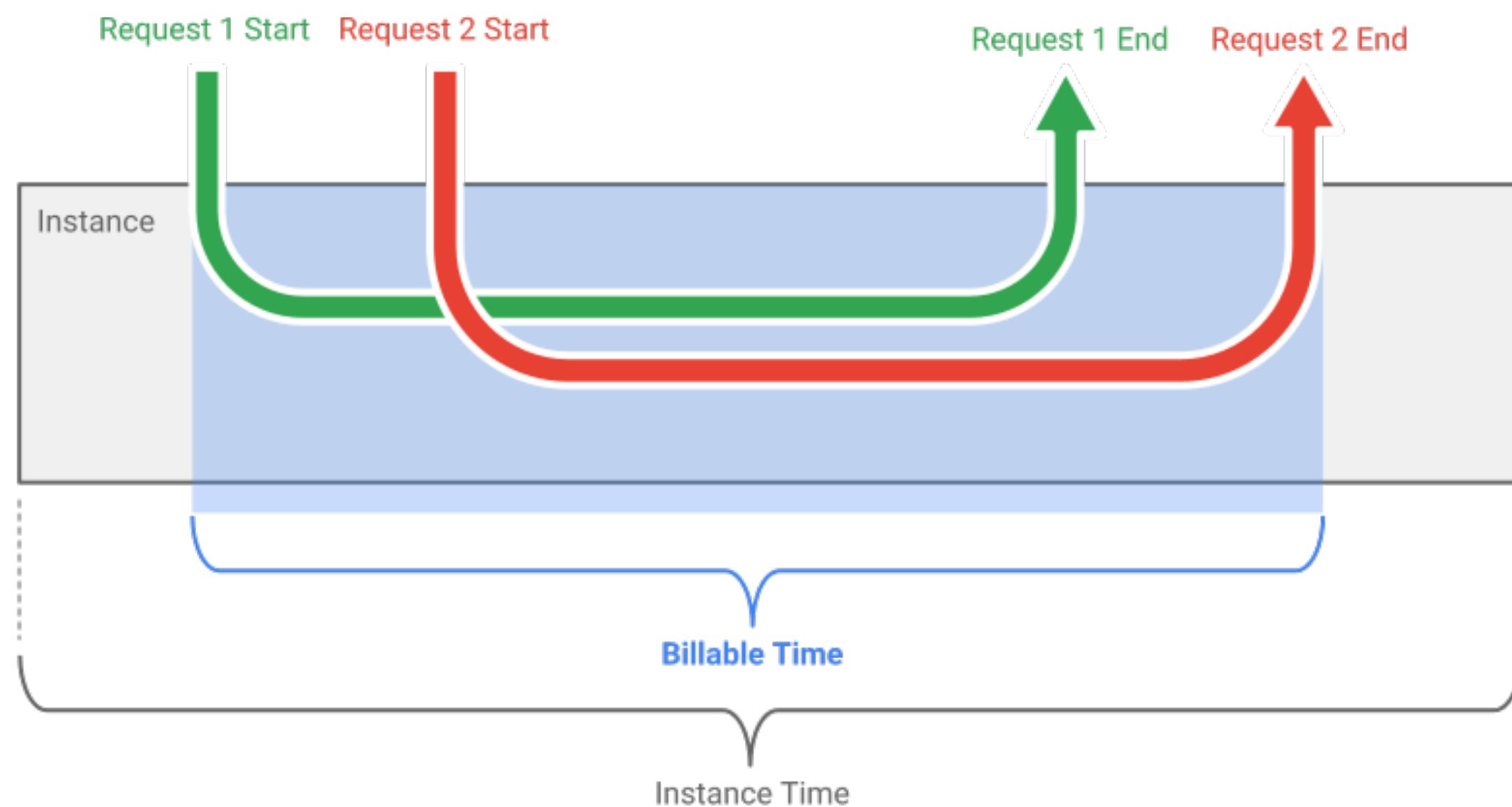
Serverless = Demand-Driven Infrastructure



Dimension	Unit of measure
Ingress	Cost per GB
Egress	Cost per GB
Storage	Cost per GB
Partitions	Cost per partition per hour (Effective July 1, 2020)

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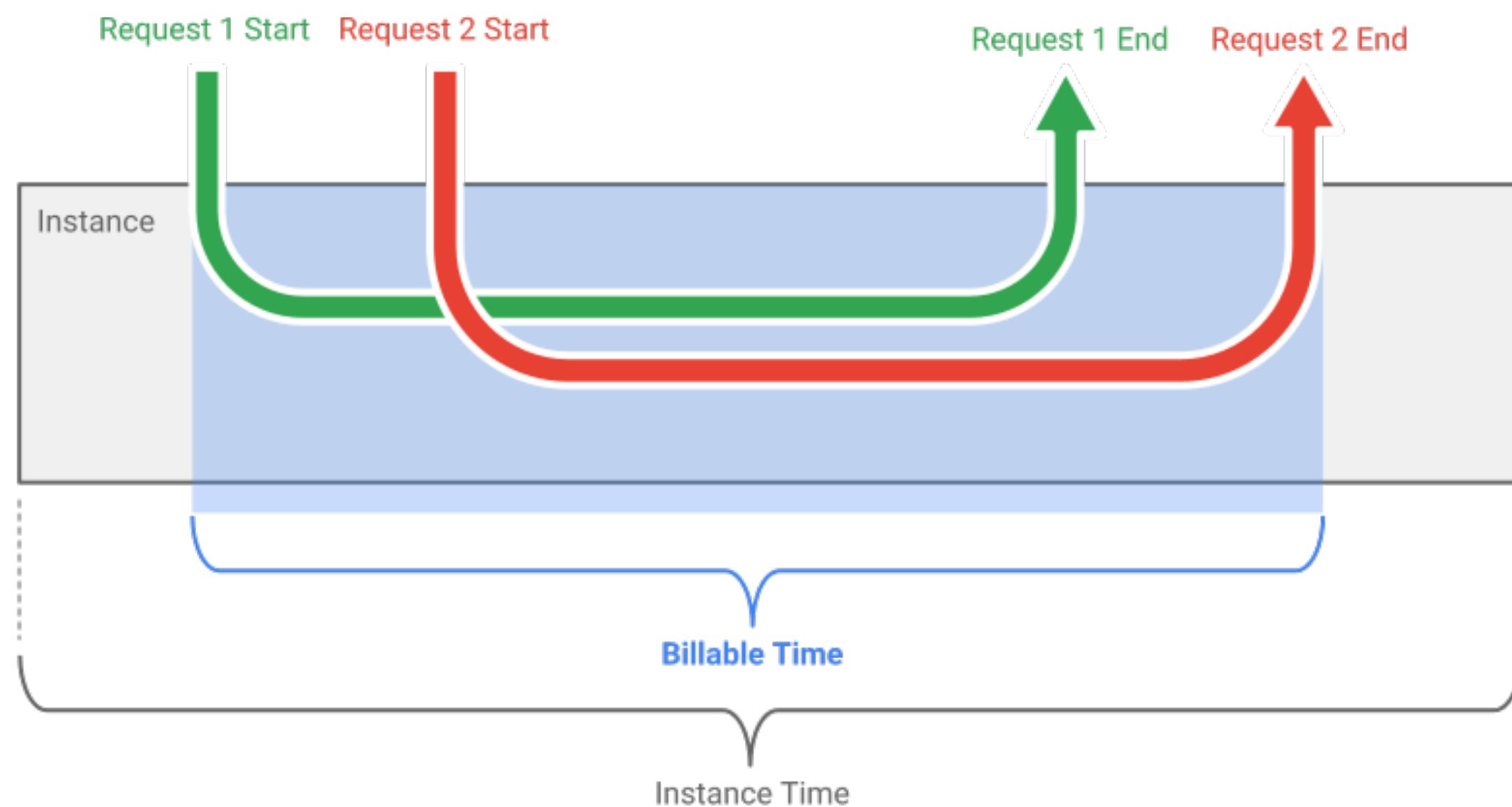
- Operational Model for Cloud Native / 12 Factor



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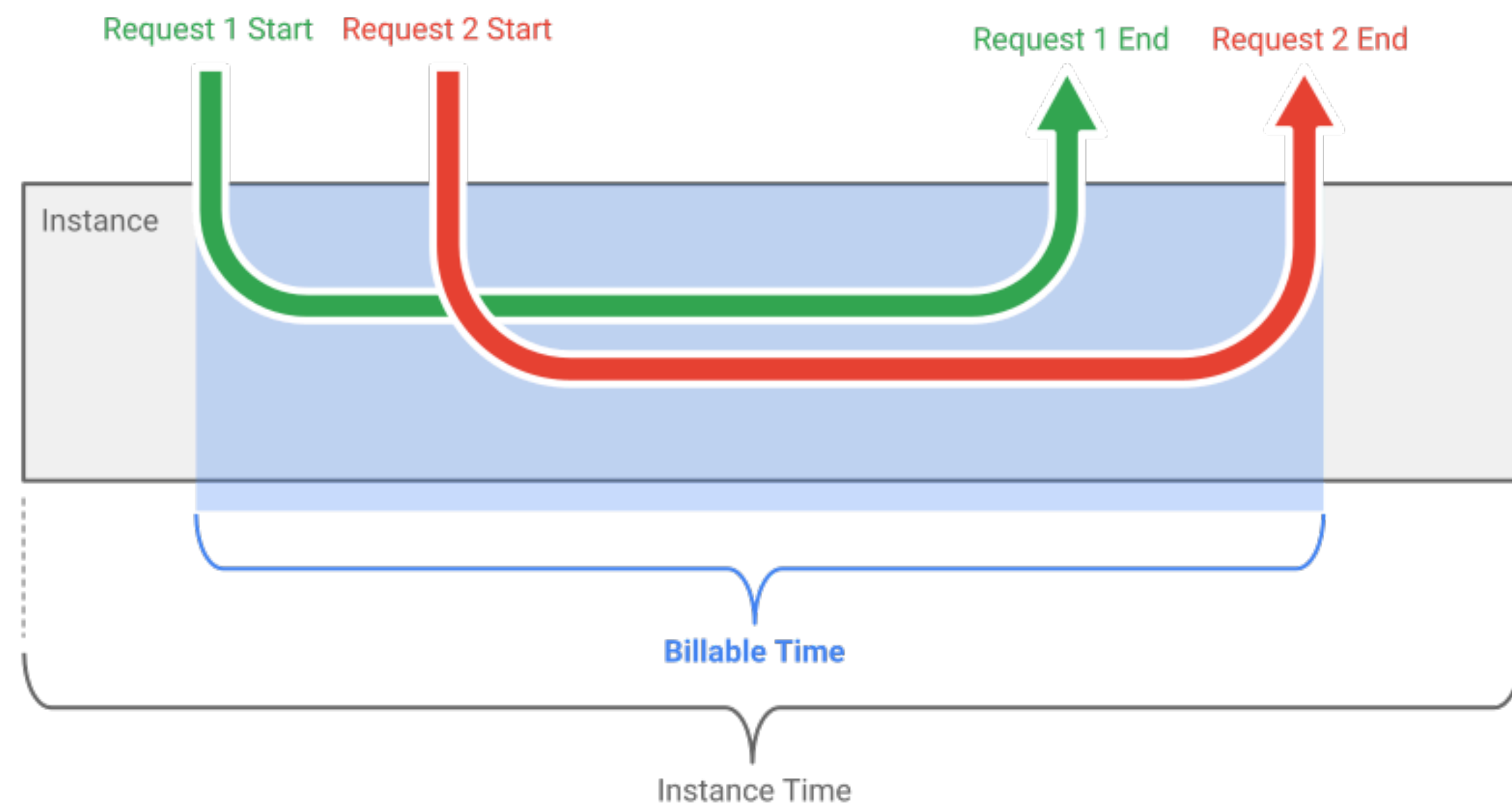
- Operational Model for Cloud Native / 12 Factor
- Cloud: Pay for what you use



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Serverless = Demand-Driven Infrastructure

- Operational Model for Cloud Native / 12 Factor
- Cloud: Pay for what you use
- On-Prem: Return unused resources to a "trough"



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Portable Serverless

Portable Serverless

- Works on *my machine* and yours and CI
(Testcontainers)



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- Works on *my machine* and yours and CI (Testcontainers)
- Works on your own *infrastructure* (**Kubernetes, KNative**)



Portable Serverless

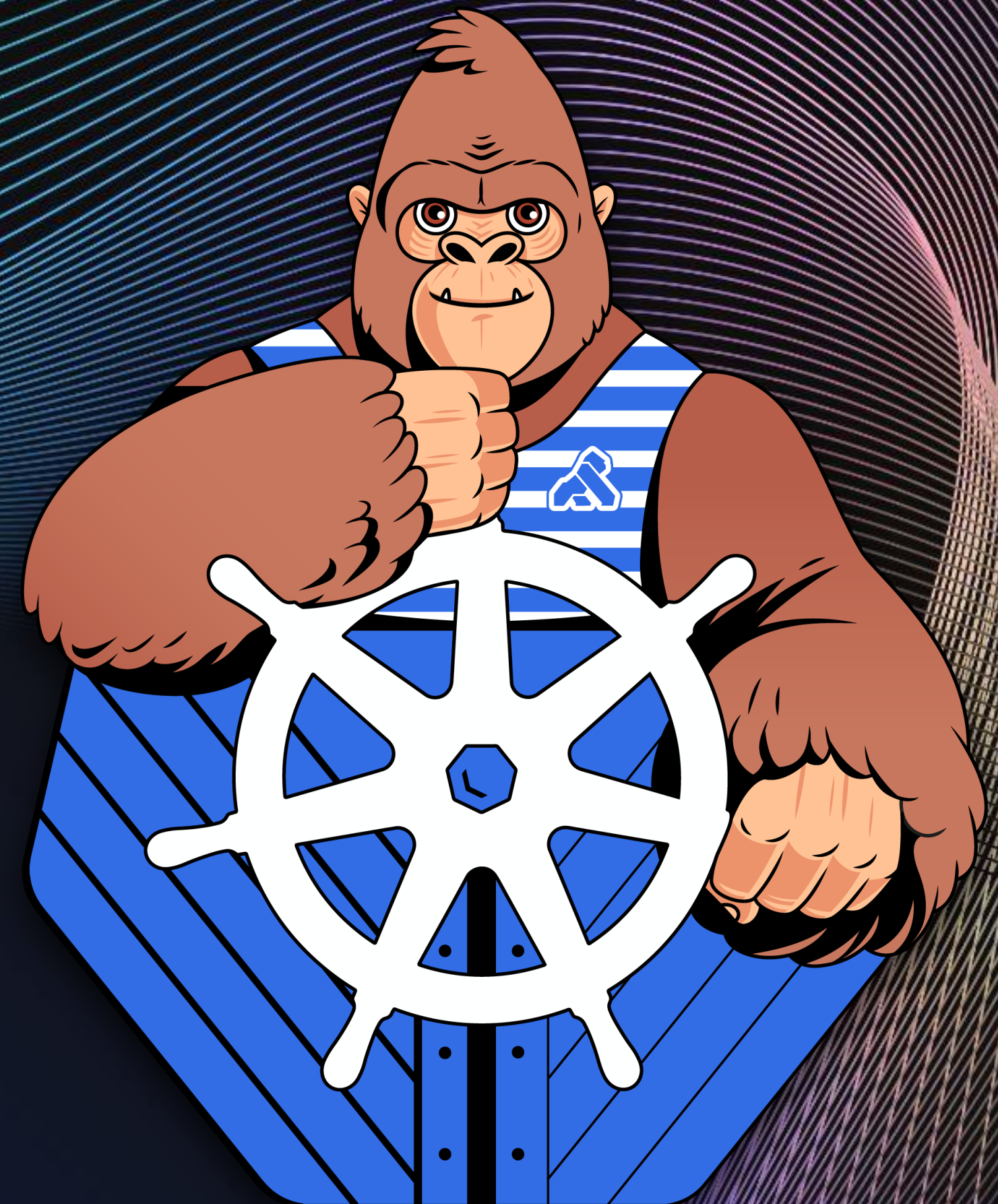
- Works on *my machine* and yours and CI (Testcontainers)
- Works on your own *infrastructure* (Kubernetes, KNative)
- Works on *managed* serverless clouds (**Cloud Run, Confluent Cloud**)





Tools we use

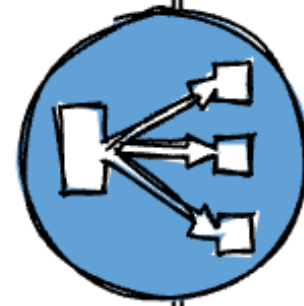
- gcloud
- kubectl
- KNative
- Strimzi
- Spring Boot + Kotlin





LET'S SEE SOME ACTION!

Kubernetes / GCP



Kong
Ingress

Rate
Limiting

Request
transform

Chat Kafka

chat_in

chat_out

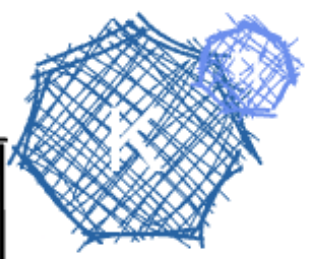
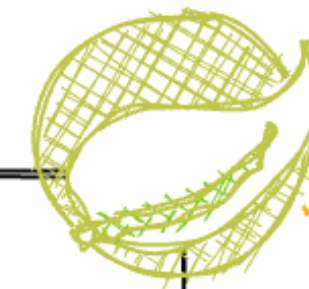
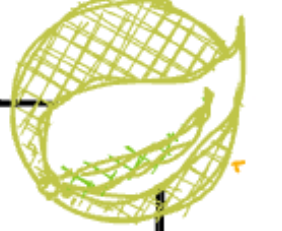
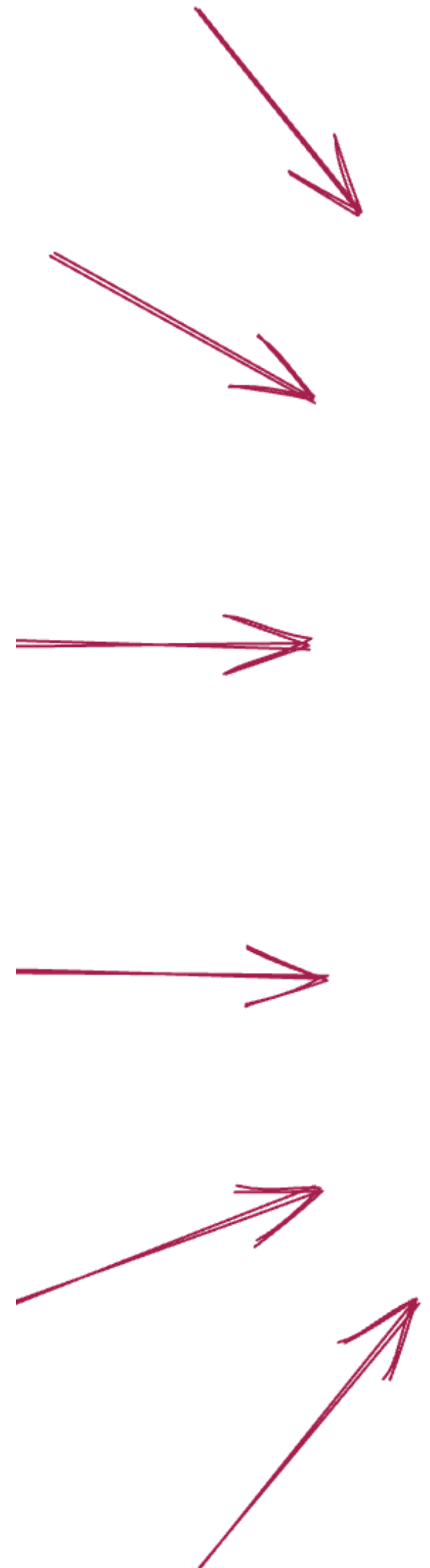


kafka

KNative
Eventing

explicit Filter

https://





**I guess you guys aren't ready
for that yet.
But your kids are gonna love it.**



AS ALWAYS,
HAVE A NICE DAY...

Viktor Gamov @ [gAmUssA](#)

