

YET ANOTHER (CLOUD-NATIVE) PROCESS PLATFORM

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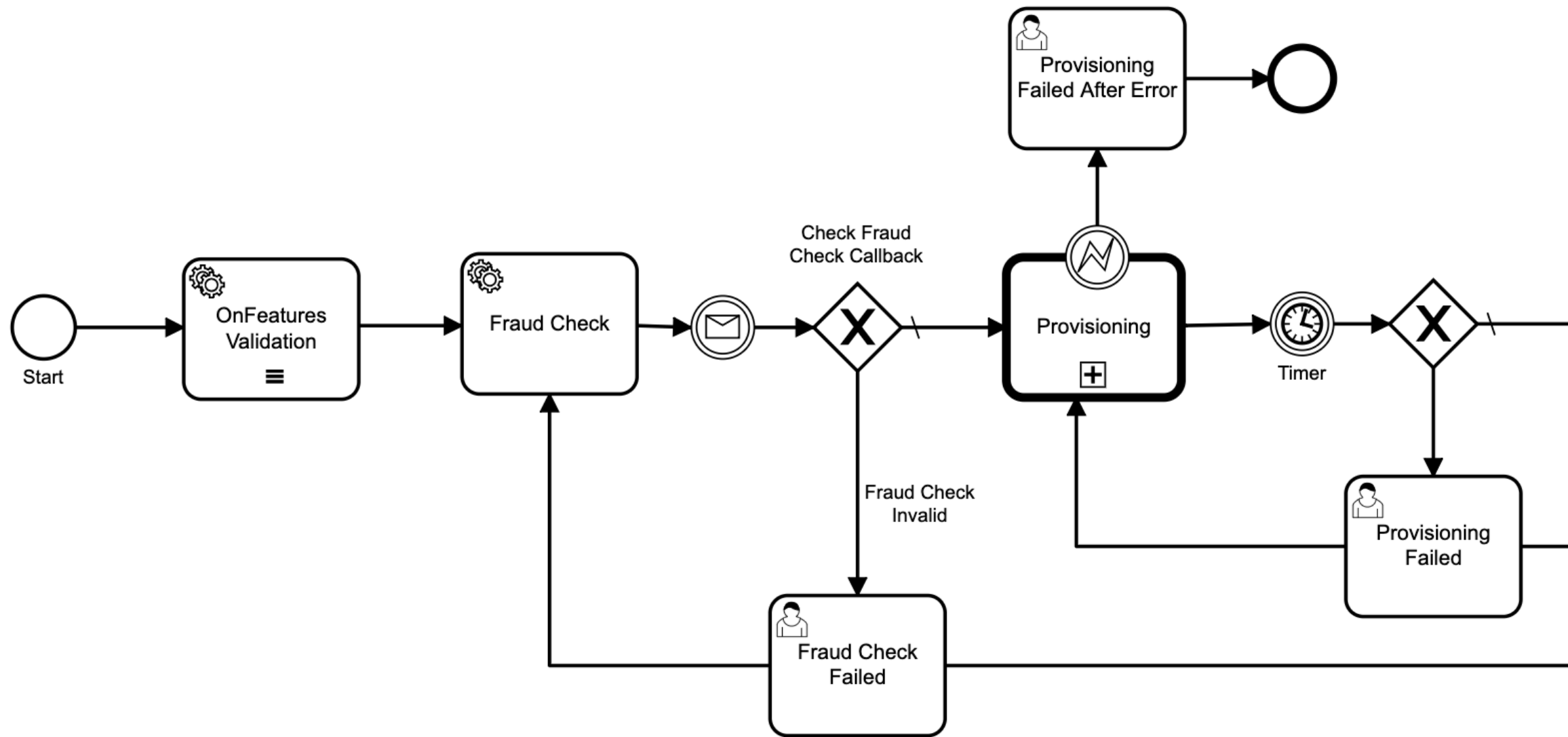


JUG Karlsruhe

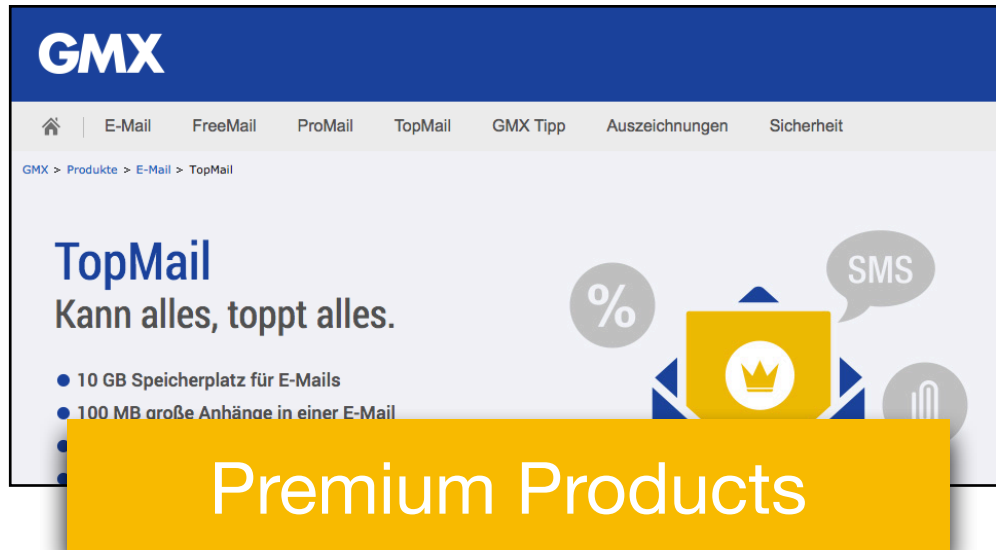
jug-karlsruhe.de | twitter.com/@jugka

BUSINESS
SOLUTIONS

We ❤️ Processes



Products



GMX

E-Mail FreeMail ProMail TopMail GMX Tipp Auszeichnungen Sicherheit

GMX > Produkte > E-Mail > TopMail

TopMail

Kann alles, toppt alles.

- 10 GB Speicherplatz für E-Mails
- 100 MB große Anhänge in einer E-Mail

Premium Products



WEB.DE WEB.DE VorteilsWelt

Deezer

WEB.DE > VorteilsWelt > Deezer

Deezer Musik-Flatrate

Musik hören, so viel Sie möchten

- So viel Musik, Hörbücher und Hörspiele streamen und herunterladen, wie Sie möchten, mit Ihrem Handy, Tablet, PC/Mac, Autoverbindung

WEB.DE **WEB.DE VorteilsWelt**



GMX Energie 0721 9605 867 | Kontakt

Strom Gas Fragen und Antworten

GMX Strom

Jetzt wechseln und sparen!

1. Ihre Lieferadresse

Postleitzahl


2. Anzahl Personen oder kWh/Jahr

1 2 3 4 5 kWh/Jahr

Aktion: Nur bis 31.03.!

- 100 % Ökostrom
- Kostenloser Anbieterwechsel
- Attraktive Prämie inklusive

GMX Energie



WEB.DE Hausratversicherung

Versicherung Angebotsrechner Tarifdetails

WEB.DE **VERSICHERUNGEN**



Challenges

technical

technical debts

architectural flaws

outdated technology

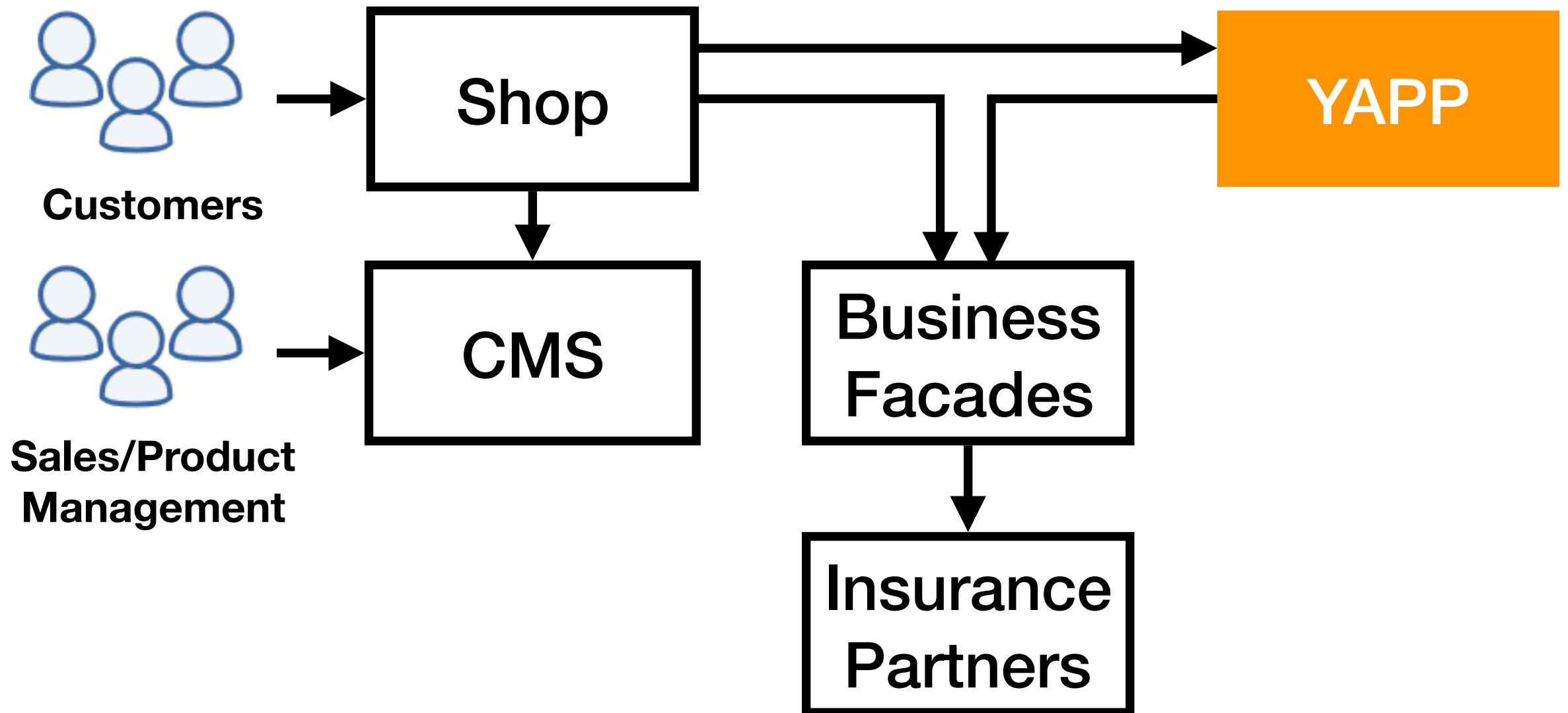
organisational

time-to-market

growing business

diverse products

Insurance overall architecture



Order vs. Process



Order

orderId: 666

processInstanceId: 667

Attributes

MARKET	GMX
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CAMPAIGN_ID	ABC
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Statuses & Events

 **PROCESSING**

PROVISIONING_FINISHED



Process

processInstanceId: 667

orderId: 666

Variables

correlationId	9ea4e521
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activationDate	"2019-03-28"
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Activities

 Start

 Fraud Check

YAPP components

Gateway

Engine

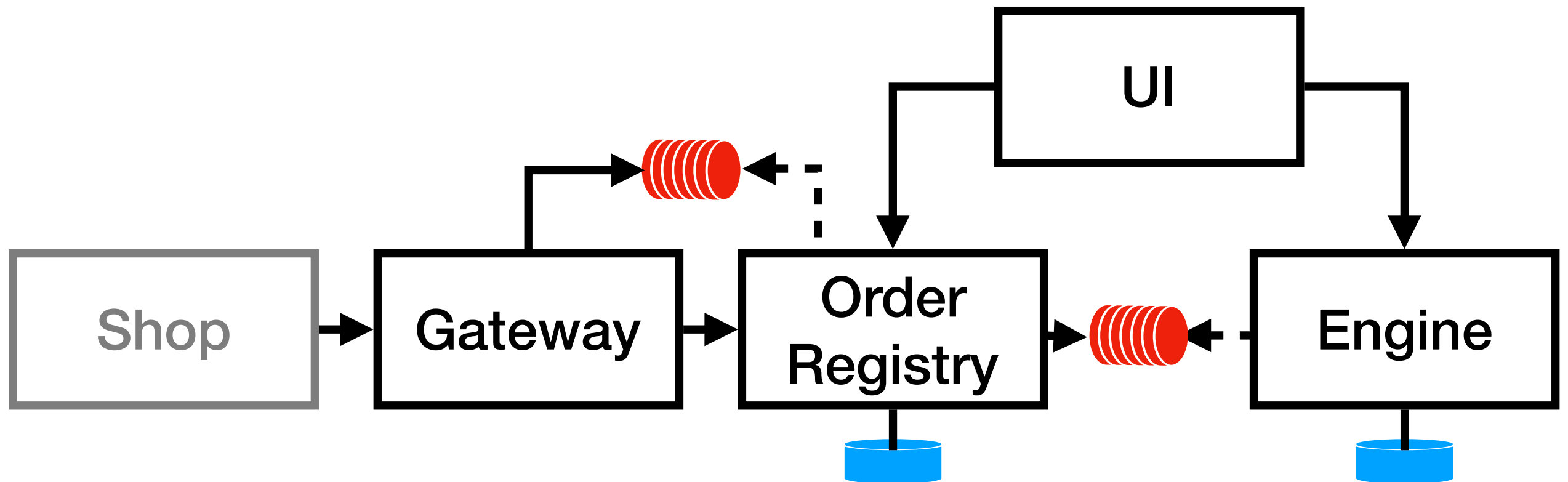
**Order
Registry**

UI

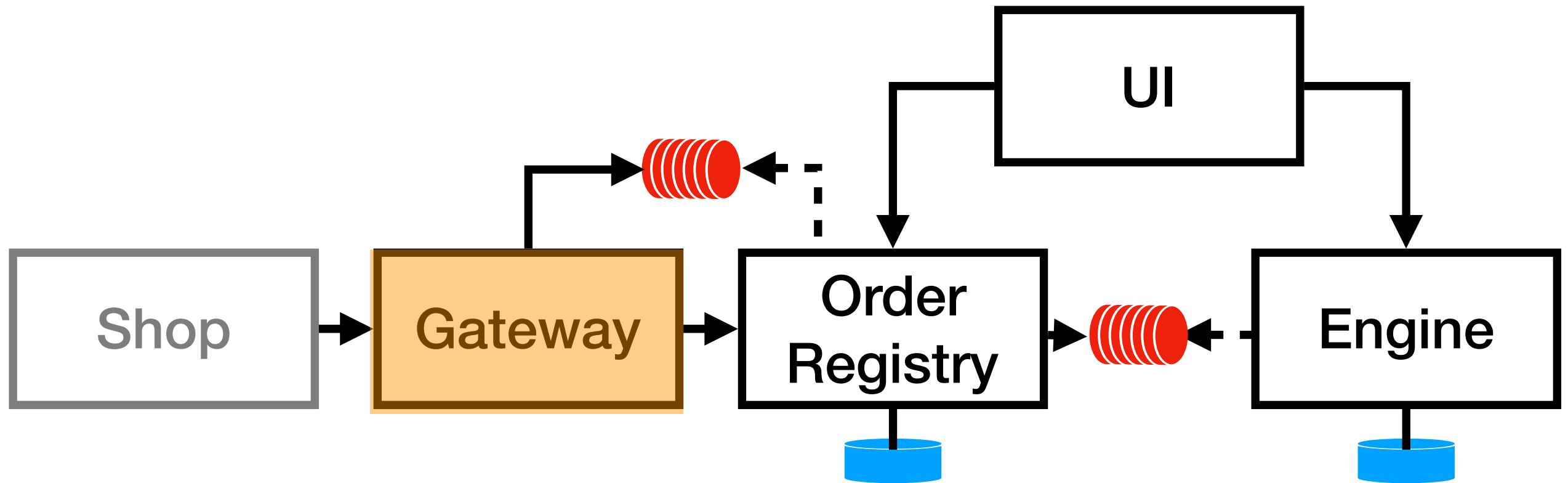
Core libraries

Product specific applications

YAPP architecture



YAPP Gateway



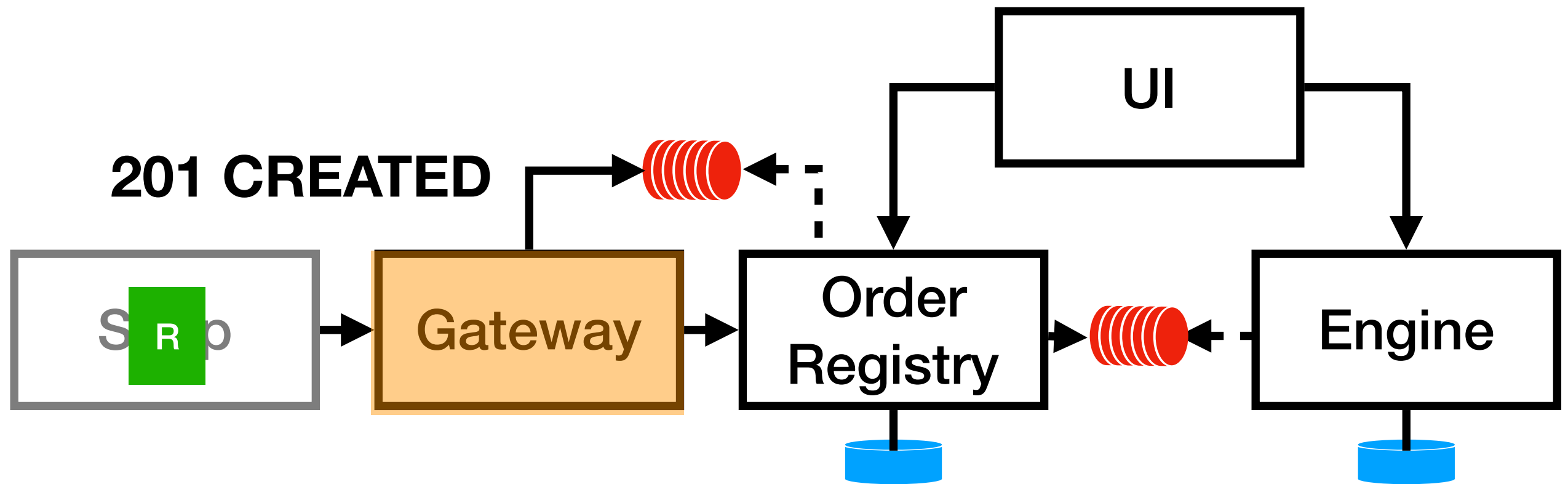
API-Gateway Pattern

Protocol converter

Catch-the-order

Sync-with-fallback

YAPP Gateway



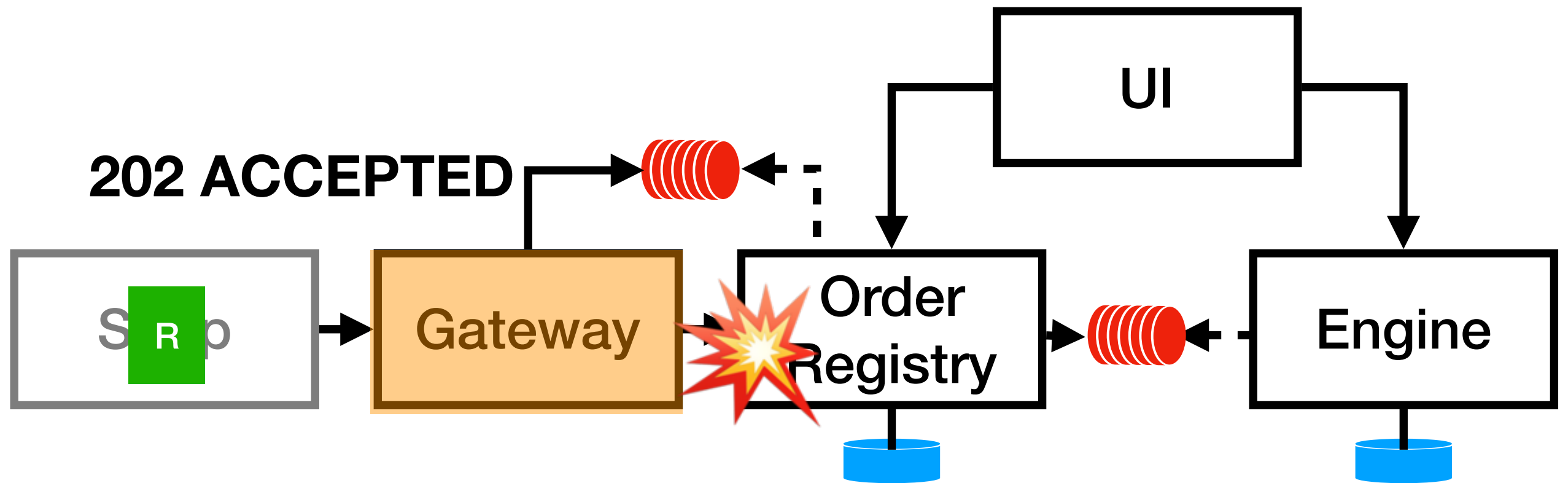
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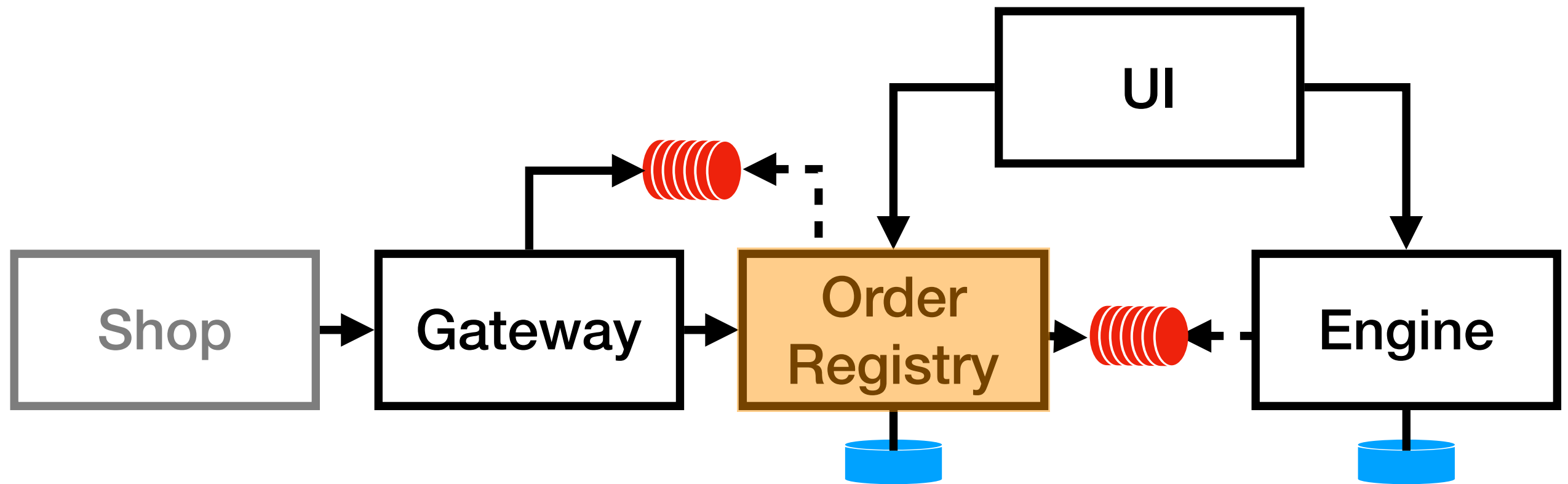
API-Gateway Pattern

Protocol converter

Catch-the-order

Sync-with-fallback

YAPP OrderRegistry



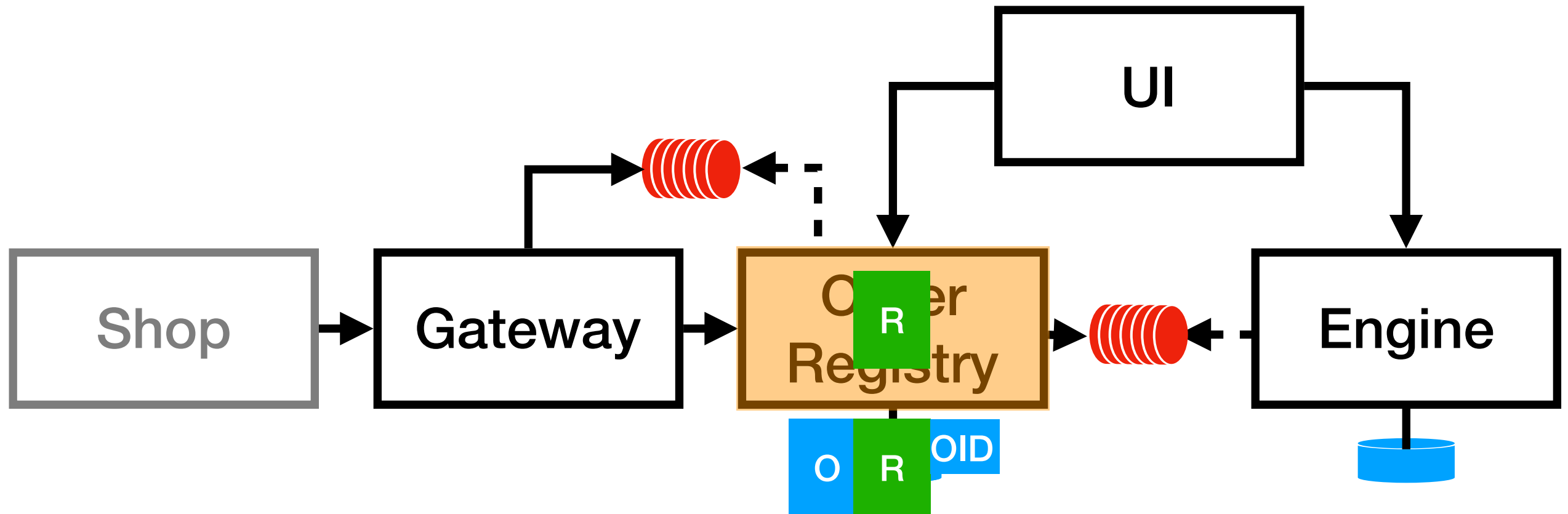
Forwarding order request

Automatic cleanup

Scheduling

Exposes order information

YAPP OrderRegistry



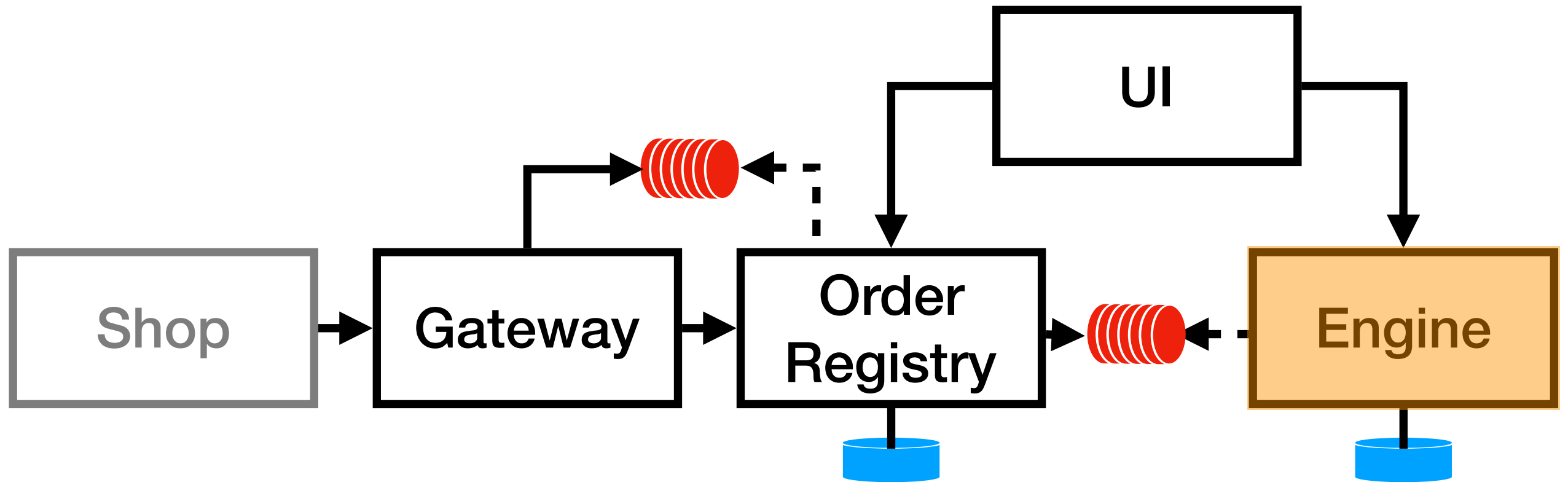
Forwarding order request

Automatic cleanup

Scheduling

Exposes order information

YAPP Engine



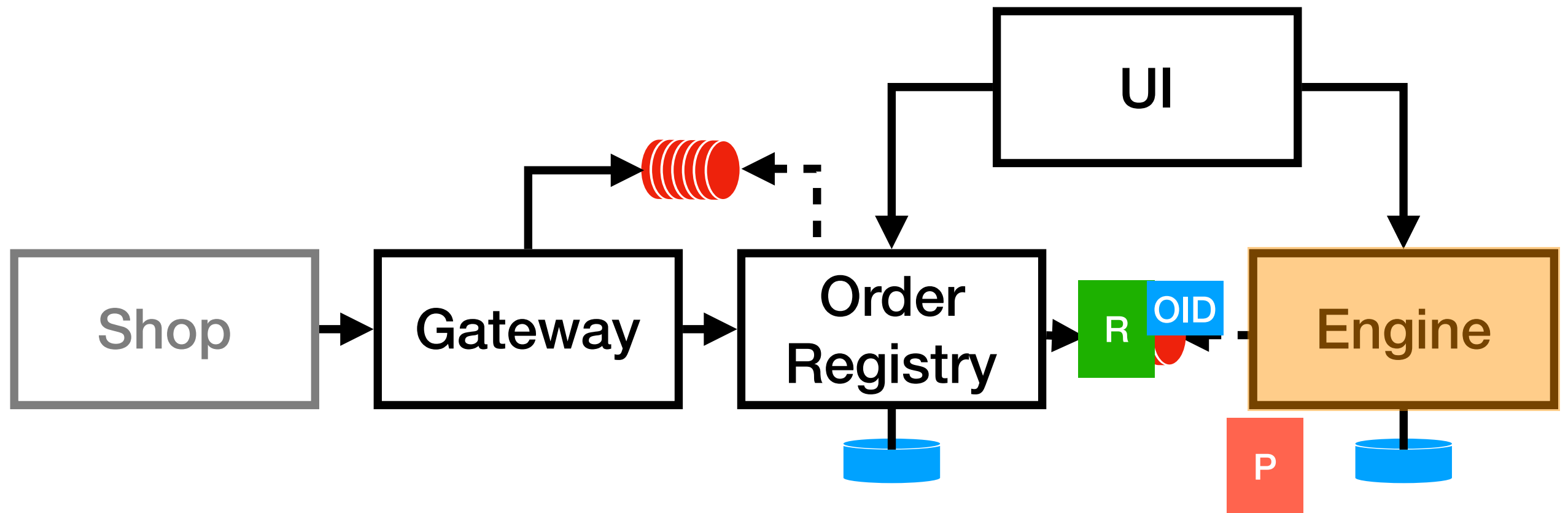
Order processing

Automatic cleanup

Retry mechanism

Exposes process information

YAPP Engine



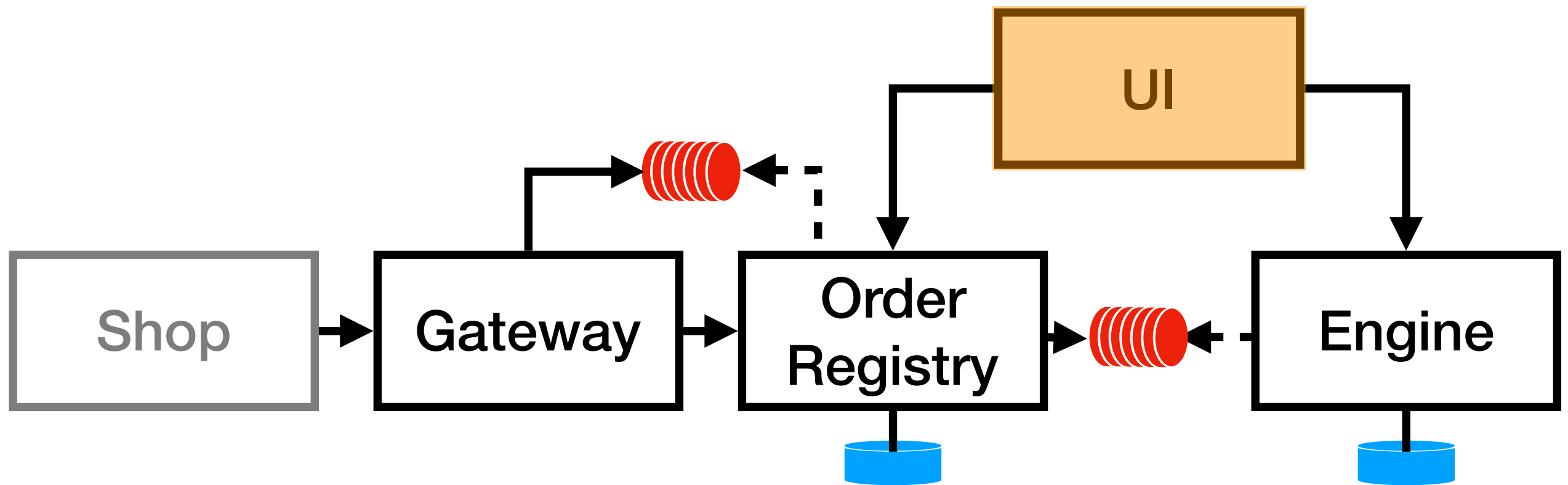
Order processing

Automatic cleanup

Retry mechanism

Exposes process information

YAPP UI



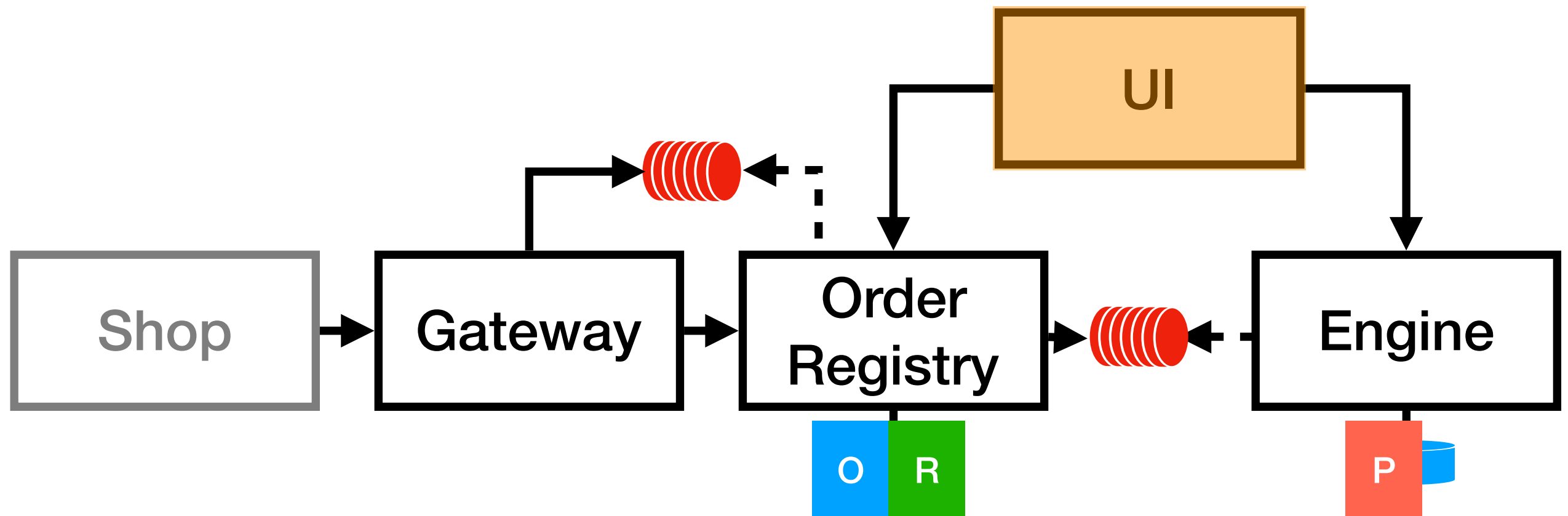
Display data

Edit data

Roles and rights management

Standing orders

YAPP UI



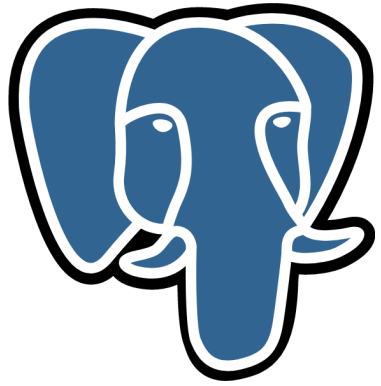
Display data

Edit data

Roles and rights management

Standing orders

Technologies



spring
boot

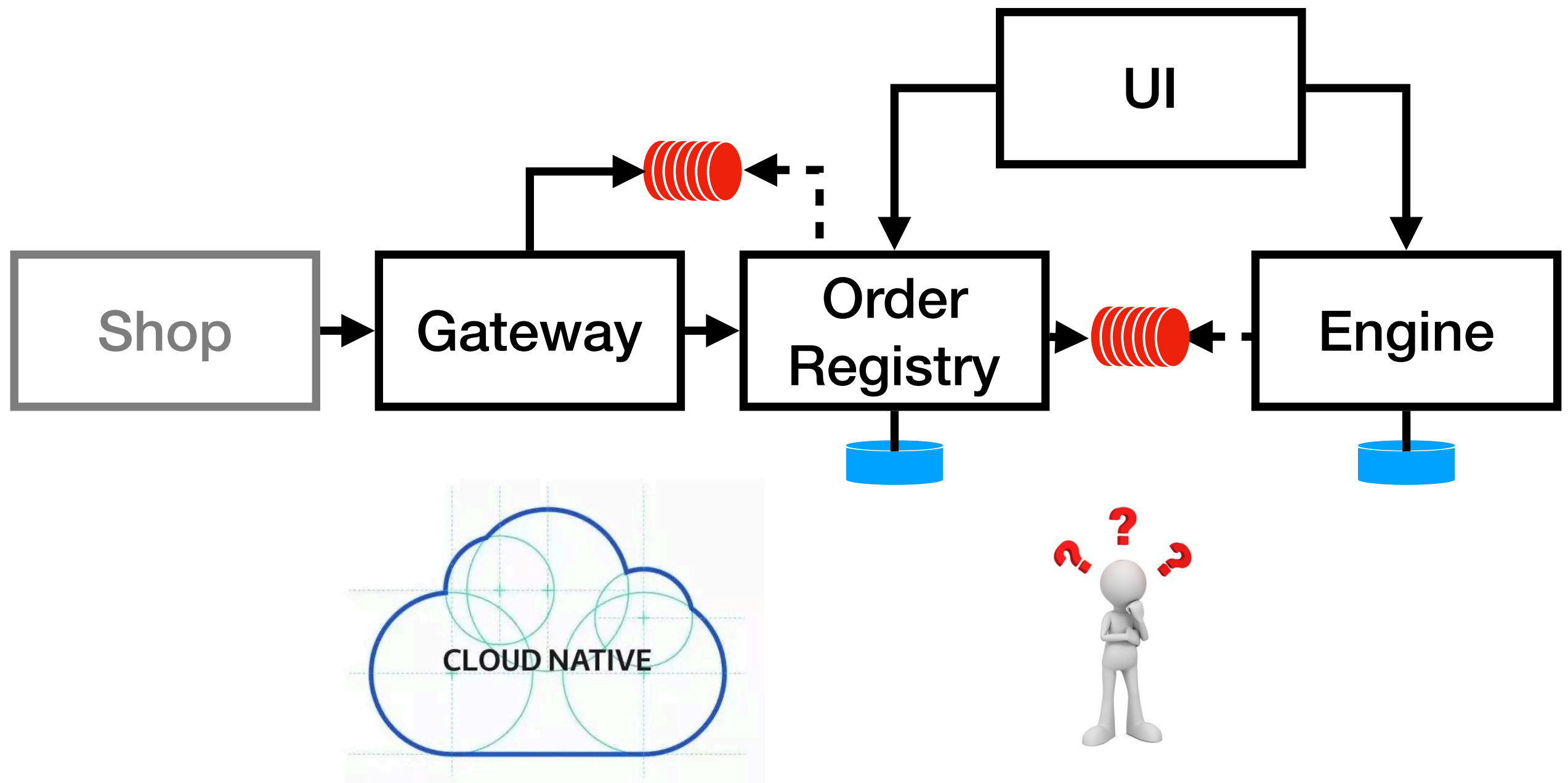


Infinispan

 camunda

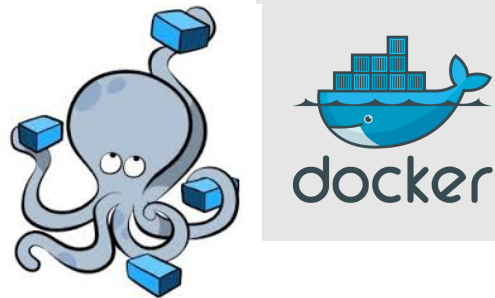
Demo time!

Cloud Native Challenges



Cloud Native aspects

Containers



**Properties
management**



**Secrets
management**



**Service
discovery**



Cloud Native aspects

Resilience

HYSTRIX
DEFEND YOUR APP

**Distributed
tracing**



**Application
metrics**

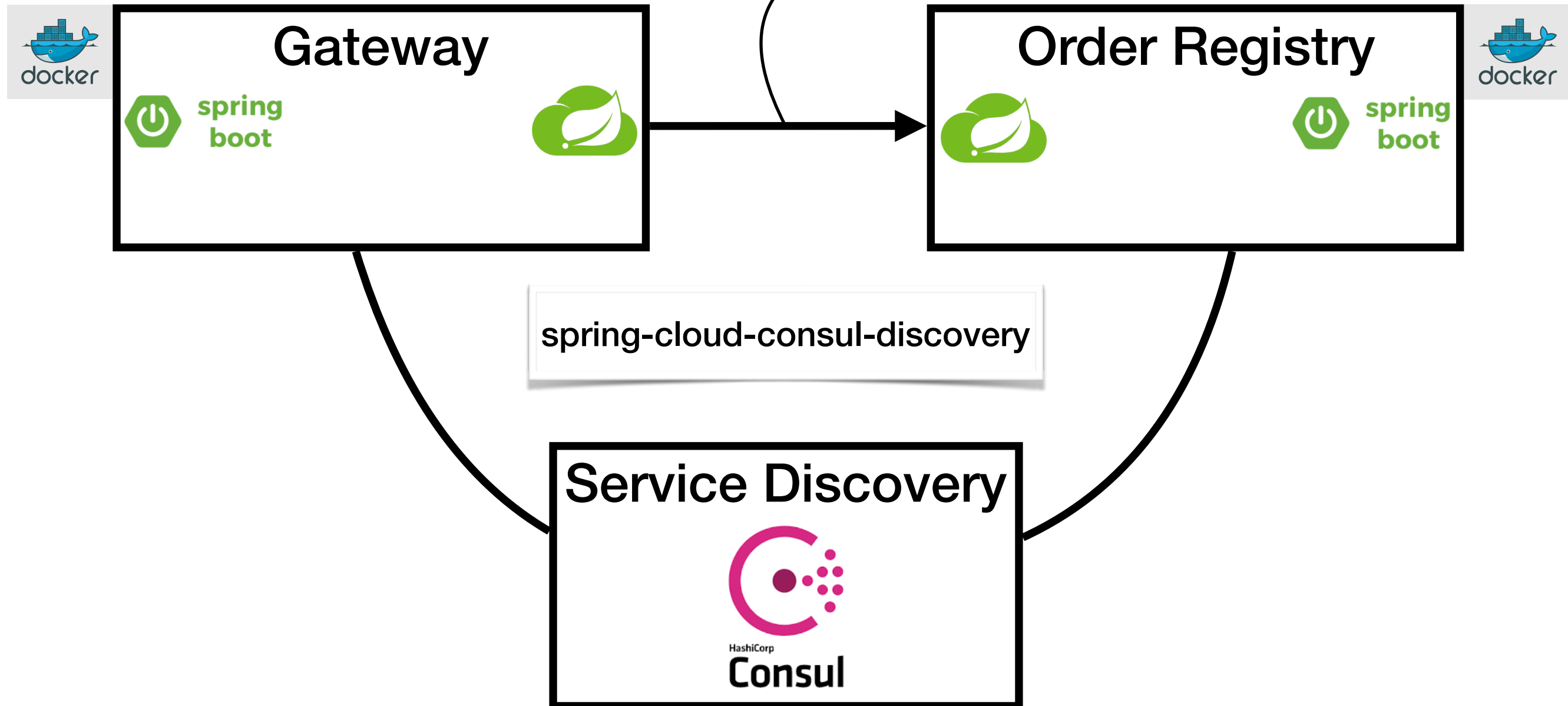


**Application
monitoring**

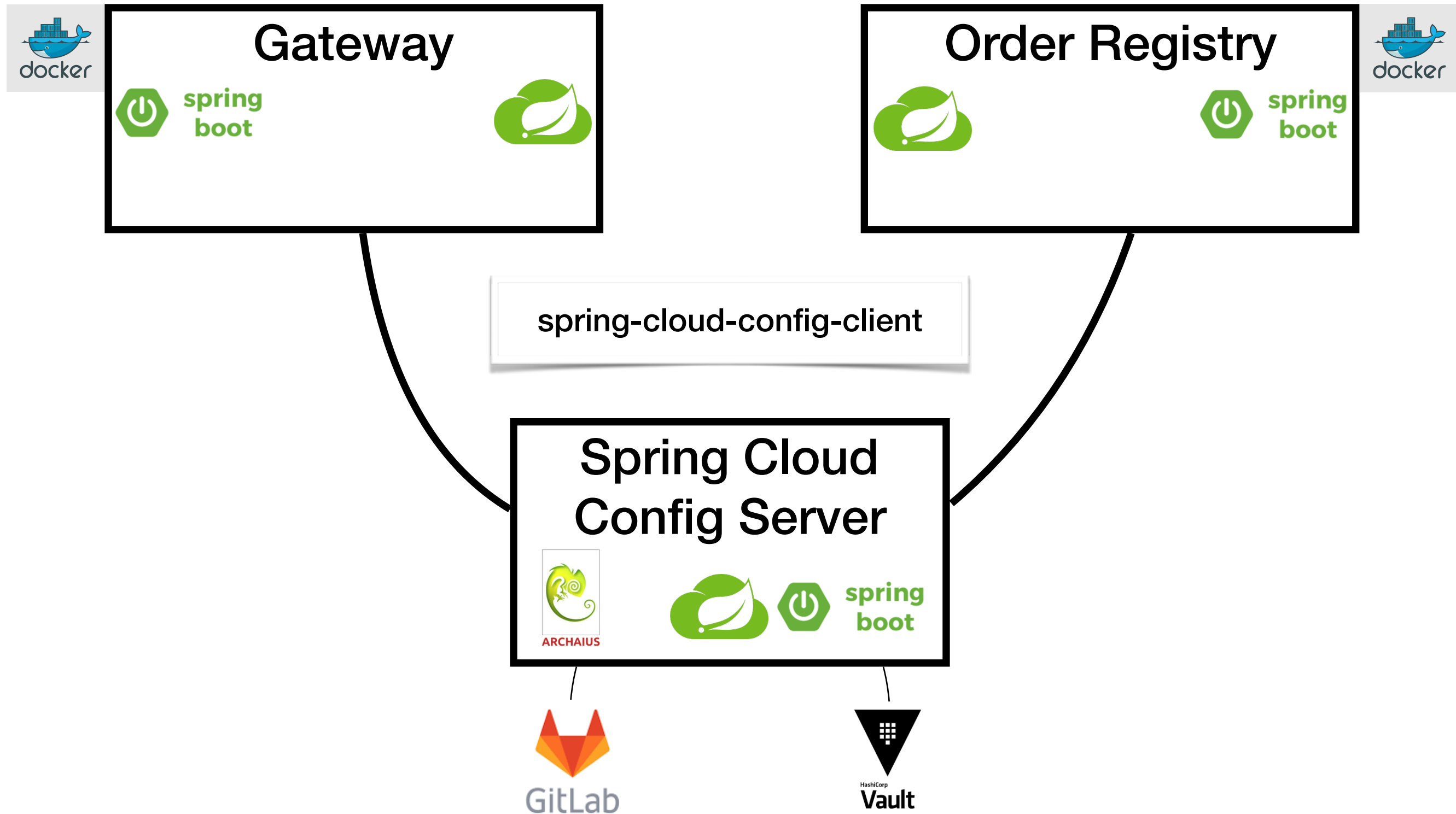


Service Discovery

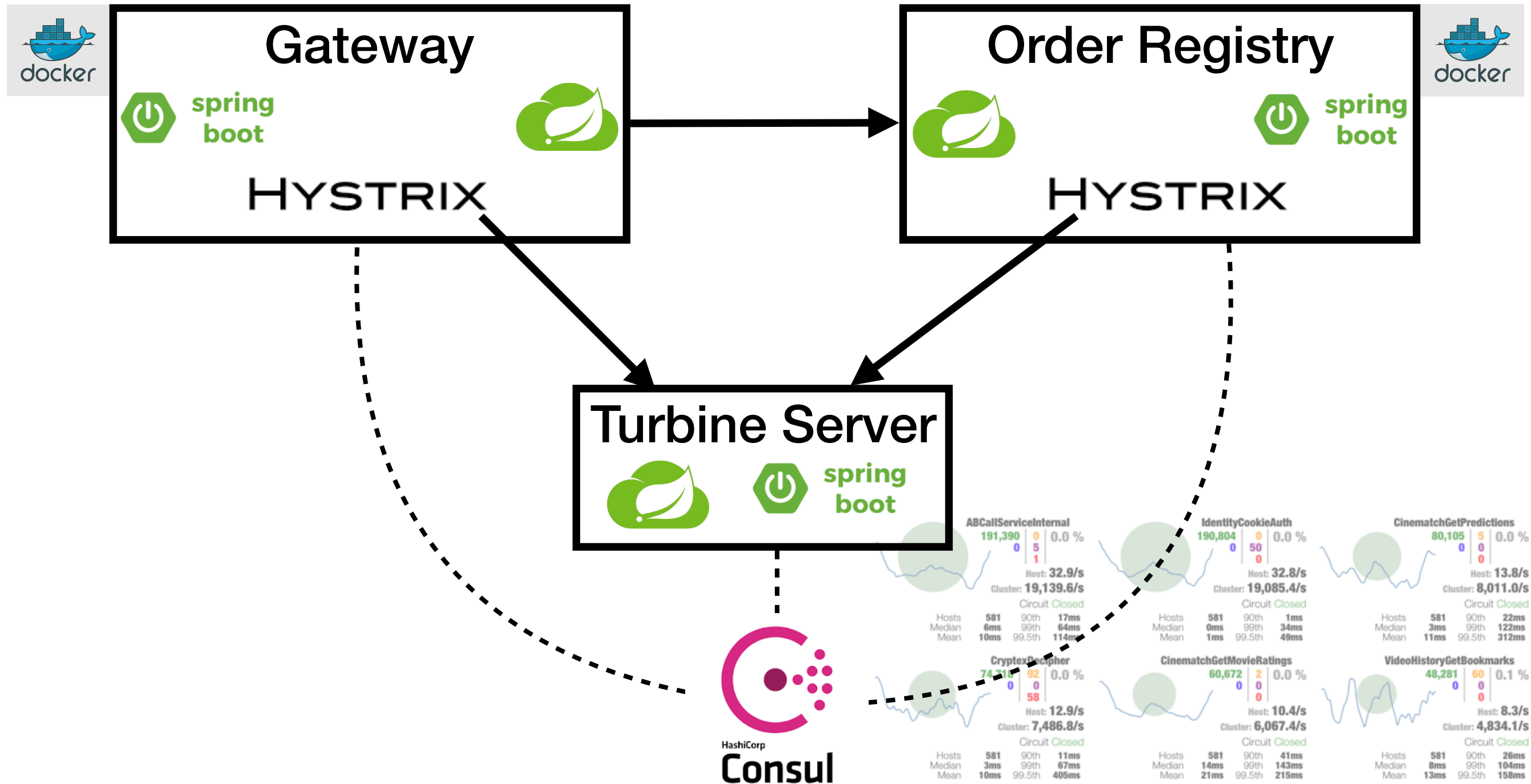
<http://yapp-insurance-orderregistry/api/v1/insurance-offer-purchase-orders>



Configuration Management

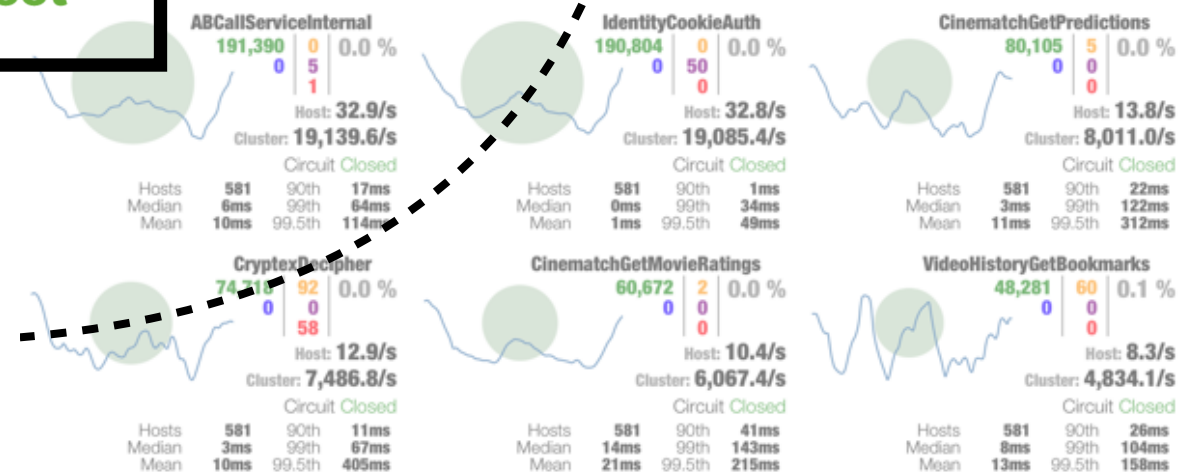


Resilience

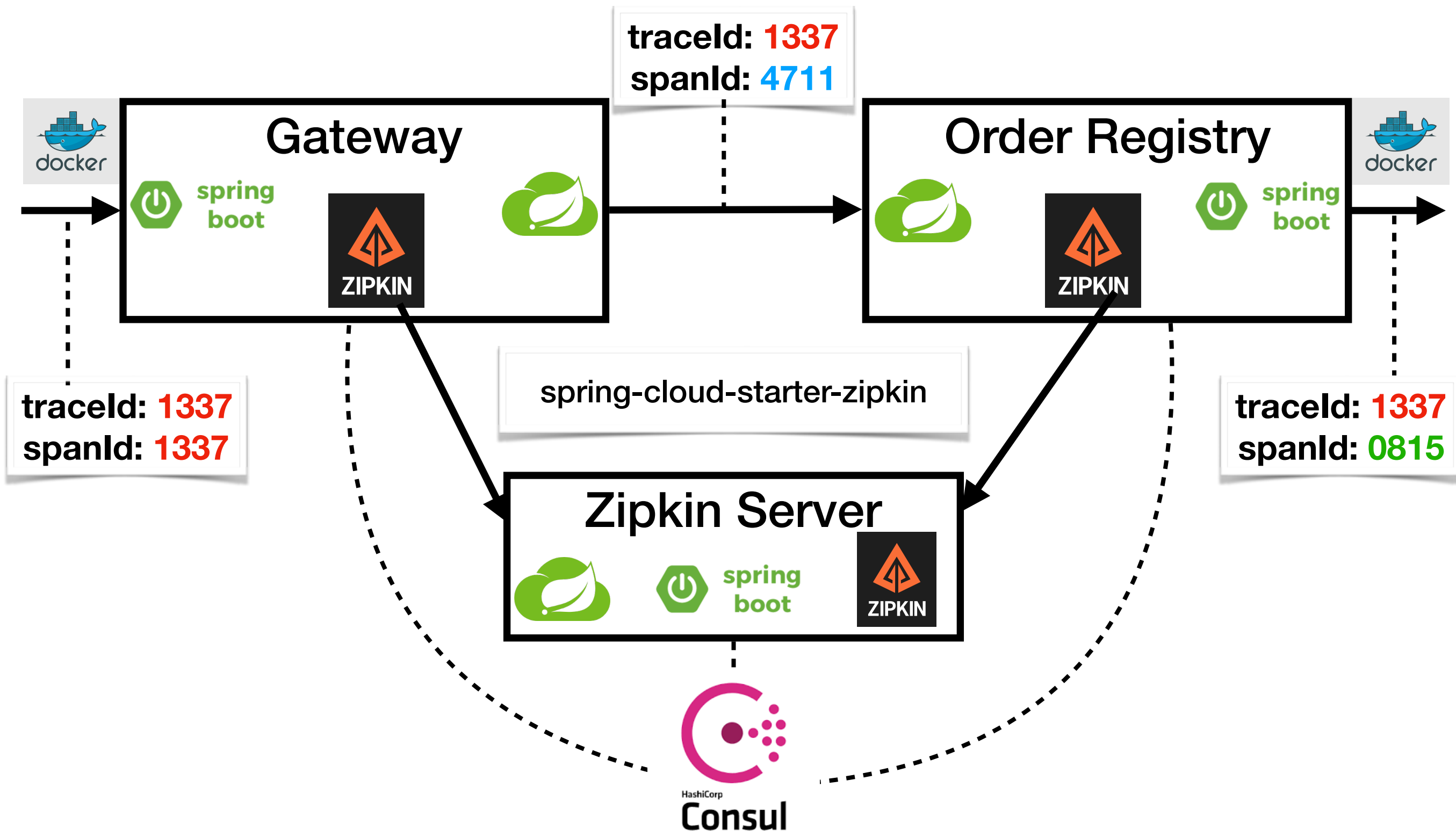


The diagram illustrates a microservices architecture using Spring Cloud Gateway, Order Registry, and Turbine Server. The Gateway and Order Registry are both running on Docker and Spring Boot, and are configured with Hystrix. The Gateway is connected to the Order Registry via a solid arrow. The Order Registry is connected to the Turbine Server via a solid arrow. The Turbine Server is also running on Spring Boot. The Gateway and Order Registry are connected to the Turbine Server via dashed arrows. The Turbine Server is connected to the Consul service discovery tool via a dashed arrow. The Consul logo is visible at the bottom center of the diagram.

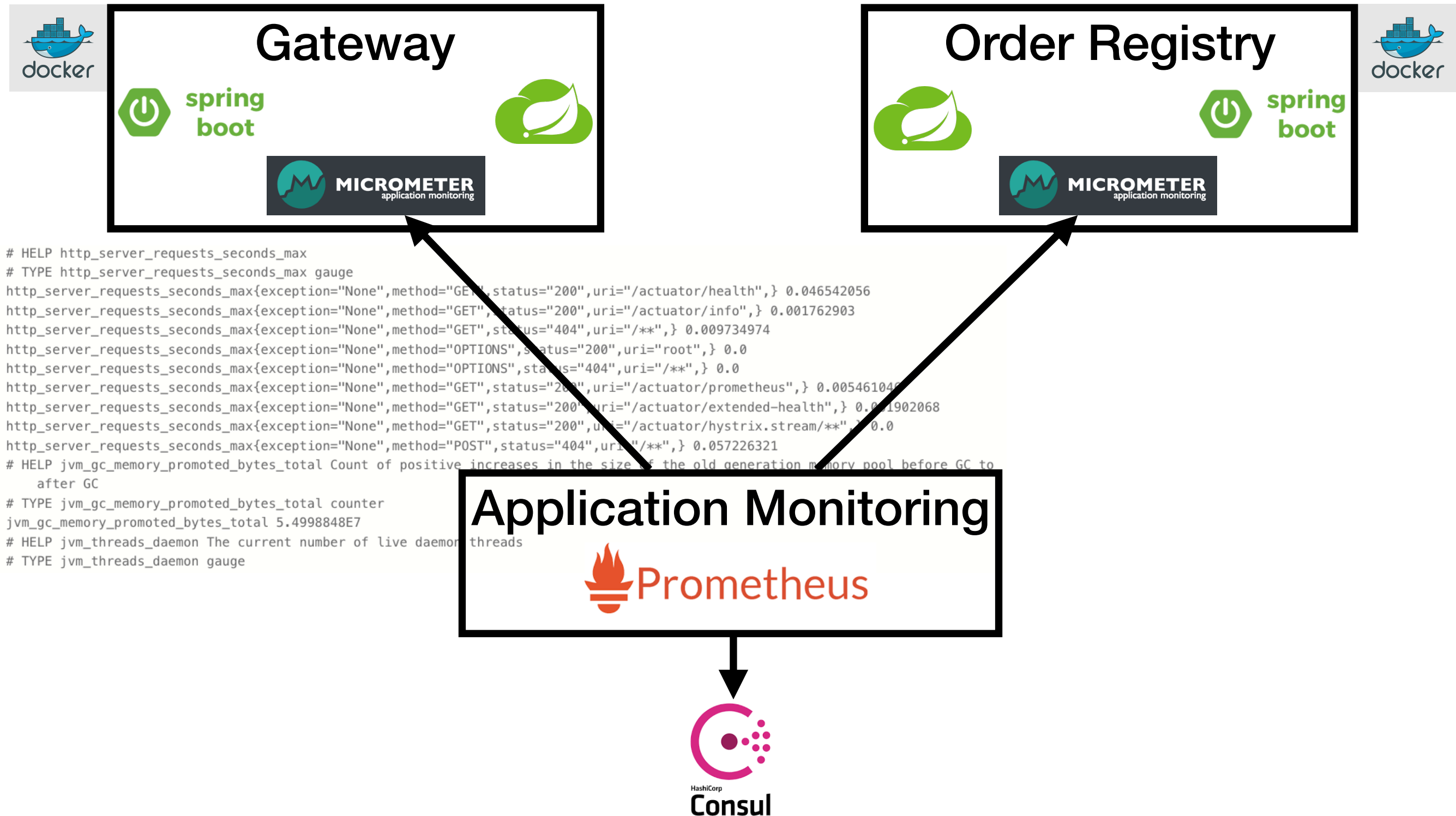
```
graph TD; Gateway[Gateway] -- solid --> OrderRegistry[Order Registry]; OrderRegistry -- solid --> TurbineServer[Turbine Server]; Gateway -. dashed .-> TurbineServer; OrderRegistry -. dashed .-> TurbineServer; TurbineServer -. dashed .-> Consul[Consul];
```



Distributed tracing



Metrics and monitoring



Demo time!

Services		255.556ms	511.113ms	766.669ms	1.022s	1.278s
[-] yapp-insurance-engine	.1.278s : async
[-] yapp-insurance-engine	. 17.001ms : hystrix
yapp-insurance-orderregist	. 15.741ms : post /api/v1/orders/{orderid}/status
[-] yapp-insurance-engine	. 32.031ms : hystrix
yapp-insurance-orderregist	. 31.237ms : post /api/v1/orders/{orderid}/events
[-] yapp-insurance-engine	. 16.890ms : hystrix
yapp-insurance-orderregist	. 15.916ms : post /api/v1/orders/{orderid}/events
yapp-insurance-engine	. 78.827ms : hystrix
[-] yapp-insurance-engine	. 607.746ms : hystrix
[-] bf-insurance-gateway	. 606.271ms : http:/parent/api/v1/policy
bf-insurance-adapter-elem	. 583ms : post /api/v1/policy
[-] bf-insurance-adapter-eler	. 367.139ms : hystrix
bf-insurance-adapter-elem	. 365.204ms : post
[-] bf-insurance-adapter-eler	. 206.444ms : hystrix
bf-insurance-adapter-elem	. 205.704ms : post
[-] yapp-insurance-engine	. 10.088ms : hystrix
yapp-insurance-orderregist	. 8.962ms : post /api/v1/orders/{o
[-] yapp-insurance-engine	. 10.183ms : hystrix
yapp-insurance-orderregist	. 9.354ms : post /api/v1/orders/
[-] yapp-insurance-engine	. 14.432ms : hystrix
yapp-insurance-orderregist	. 13.580ms : post /api/v1/o
[-] yapp-insurance-engine	. 69.723ms : hystrix
yapp-insurance-engine	. 68.318ms : post

Outlook

**metrics for business
monitoring**

**central logging
management**

That's it!

Thanks for joining.

Any questions?

Want to work with us?

