

Pivotal®

# Spring Cloud Data Flow

## with Fraud detection demo



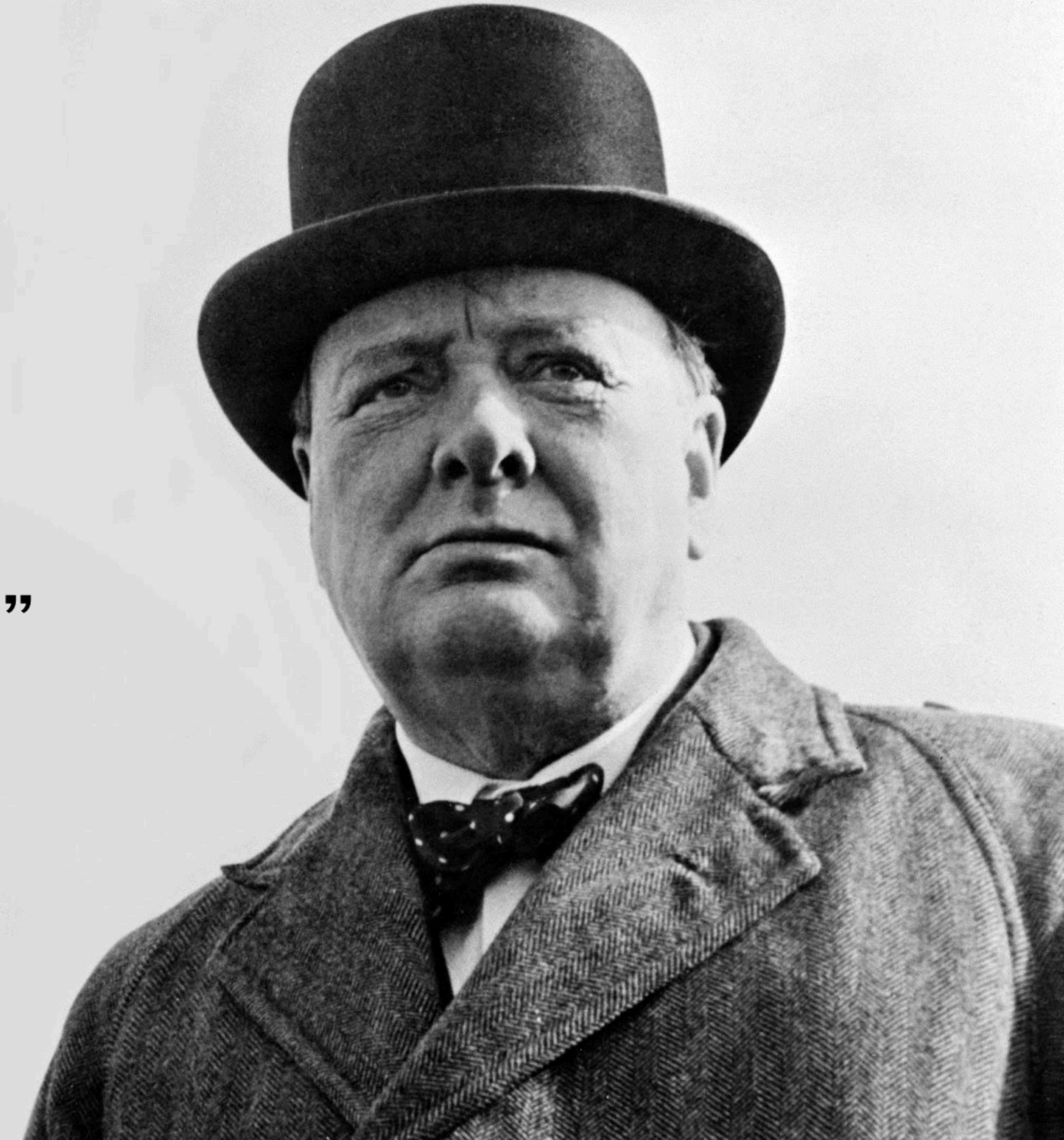
[yjeong@pivotal.io](mailto:yjeong@pivotal.io)

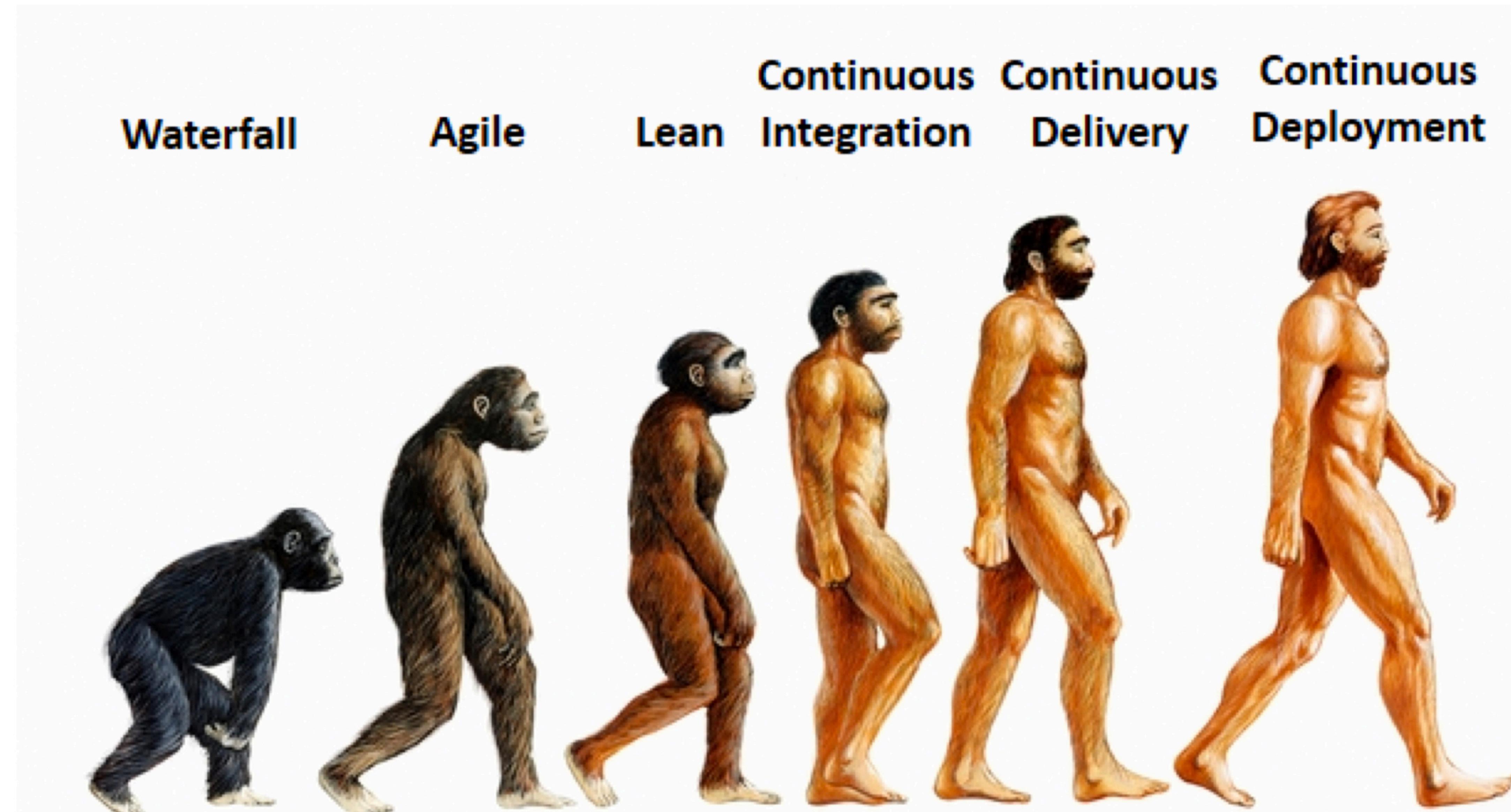
Younjin Jeong, Principal Technologist at Pivotal

“Success is not final,  
failure is not fatal.

It is the courage to  
continue that counts.”

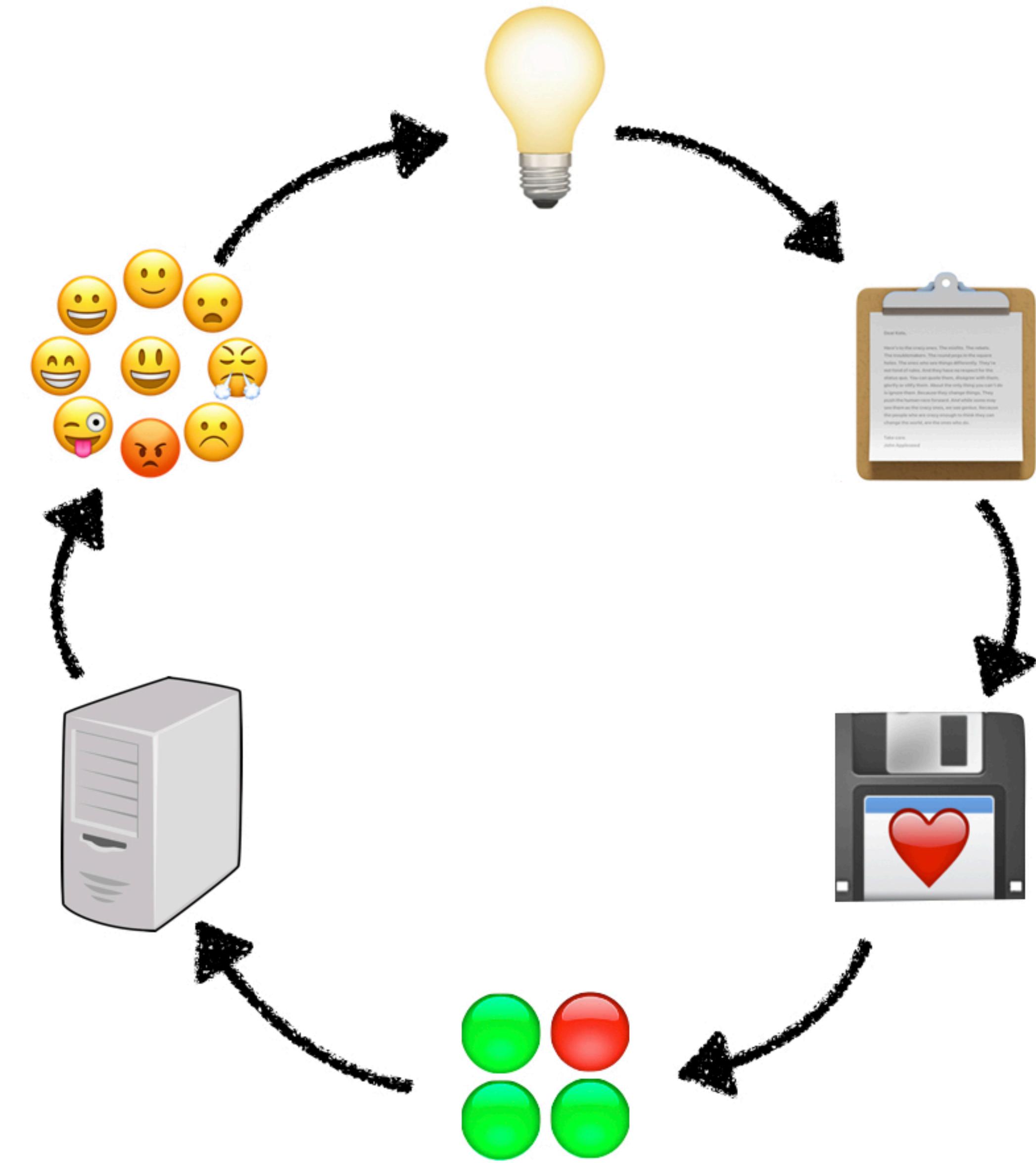
Winston Churchill

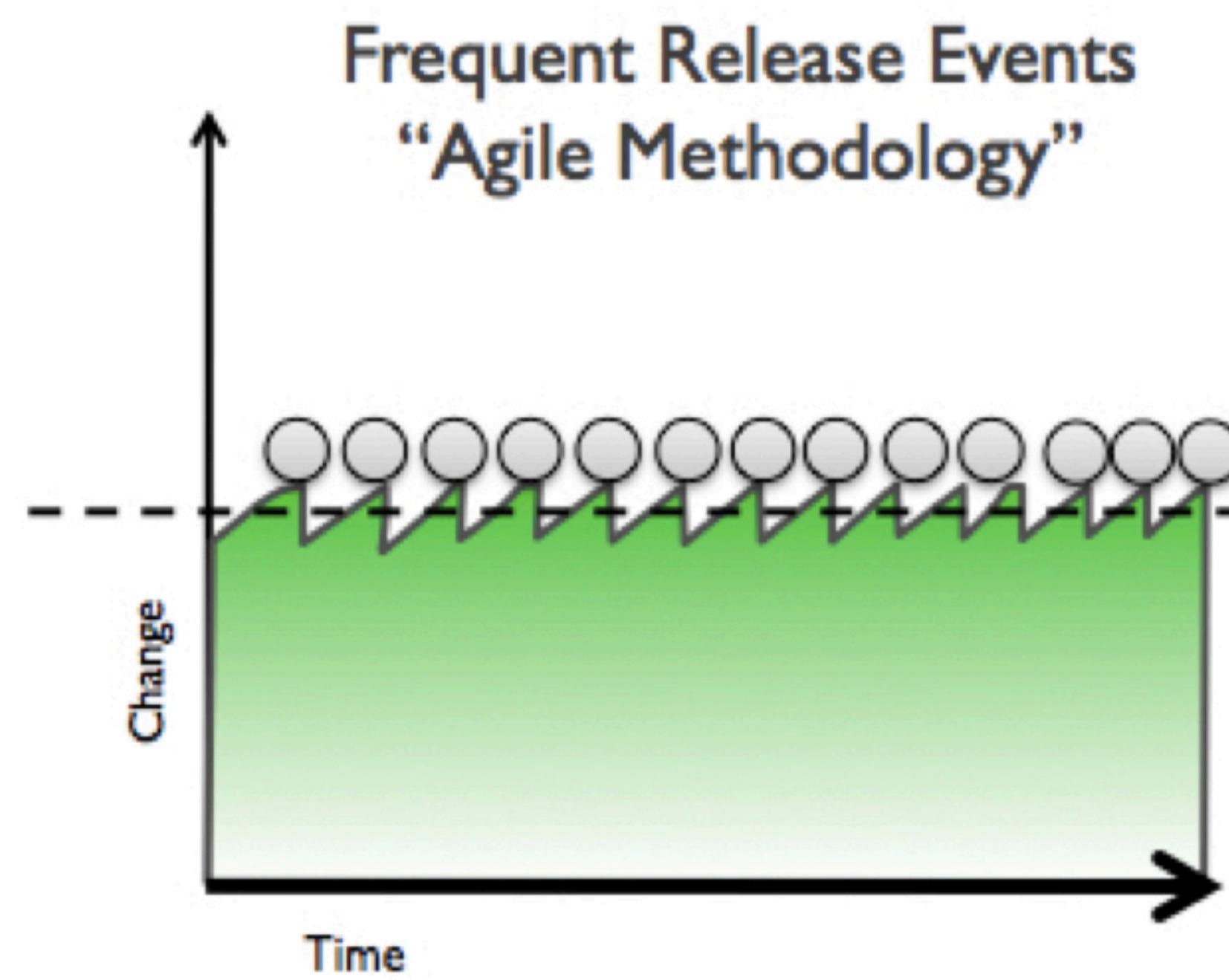




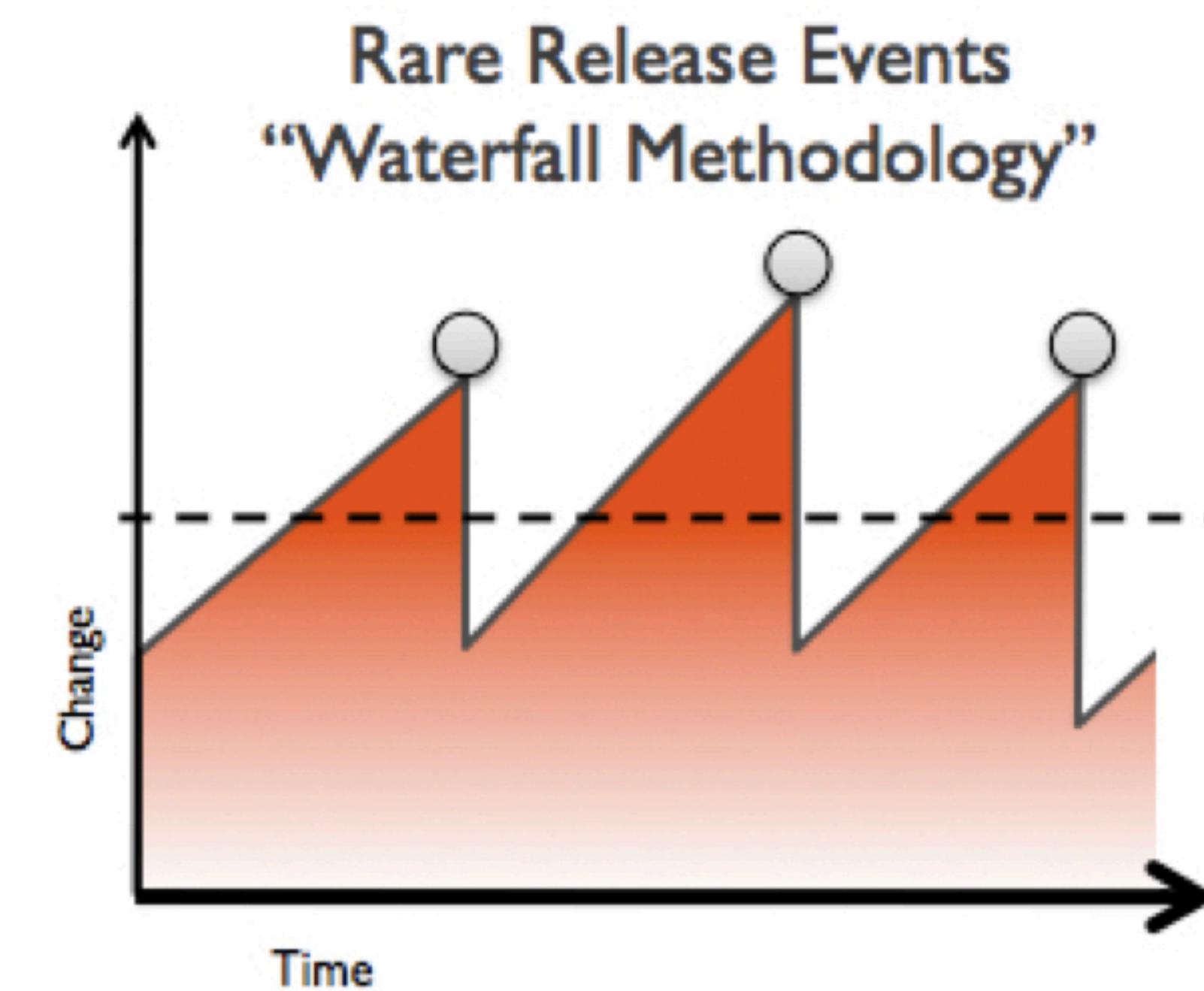


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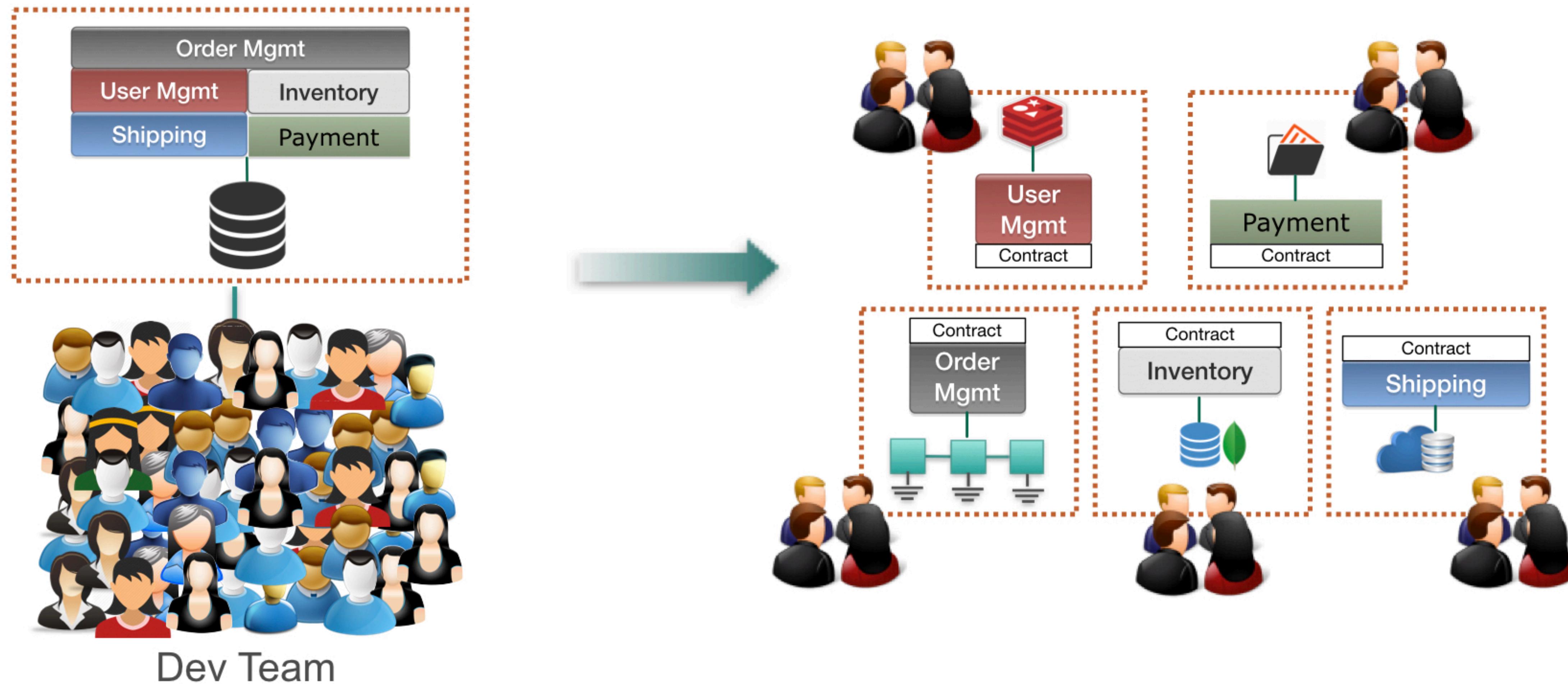
**Smoother Effort**  
**Less Risk**



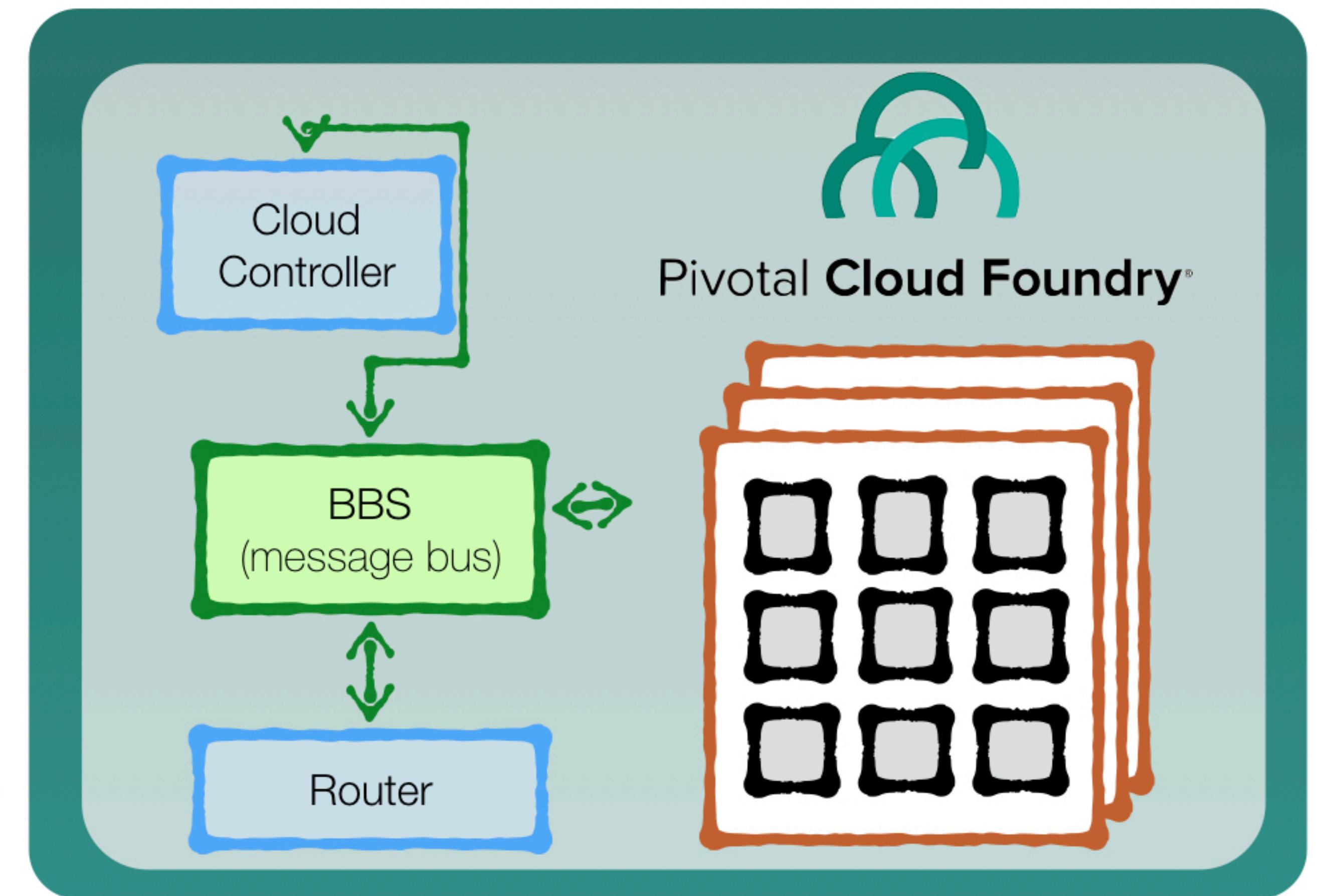
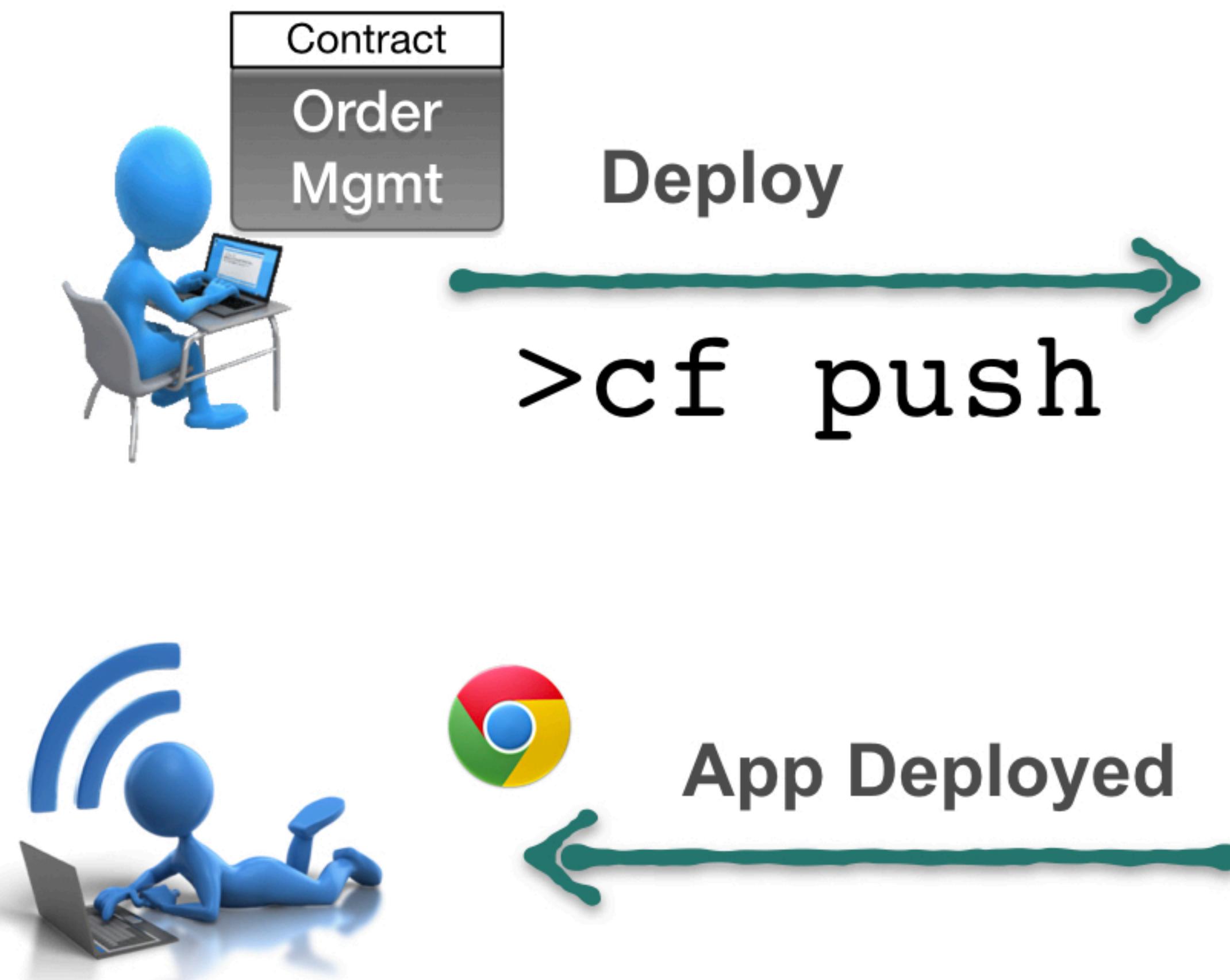
**Effort Peaks**  
**High Risk**

# Going Agile - Breaking the monolith

## Conway's Law and Microservices

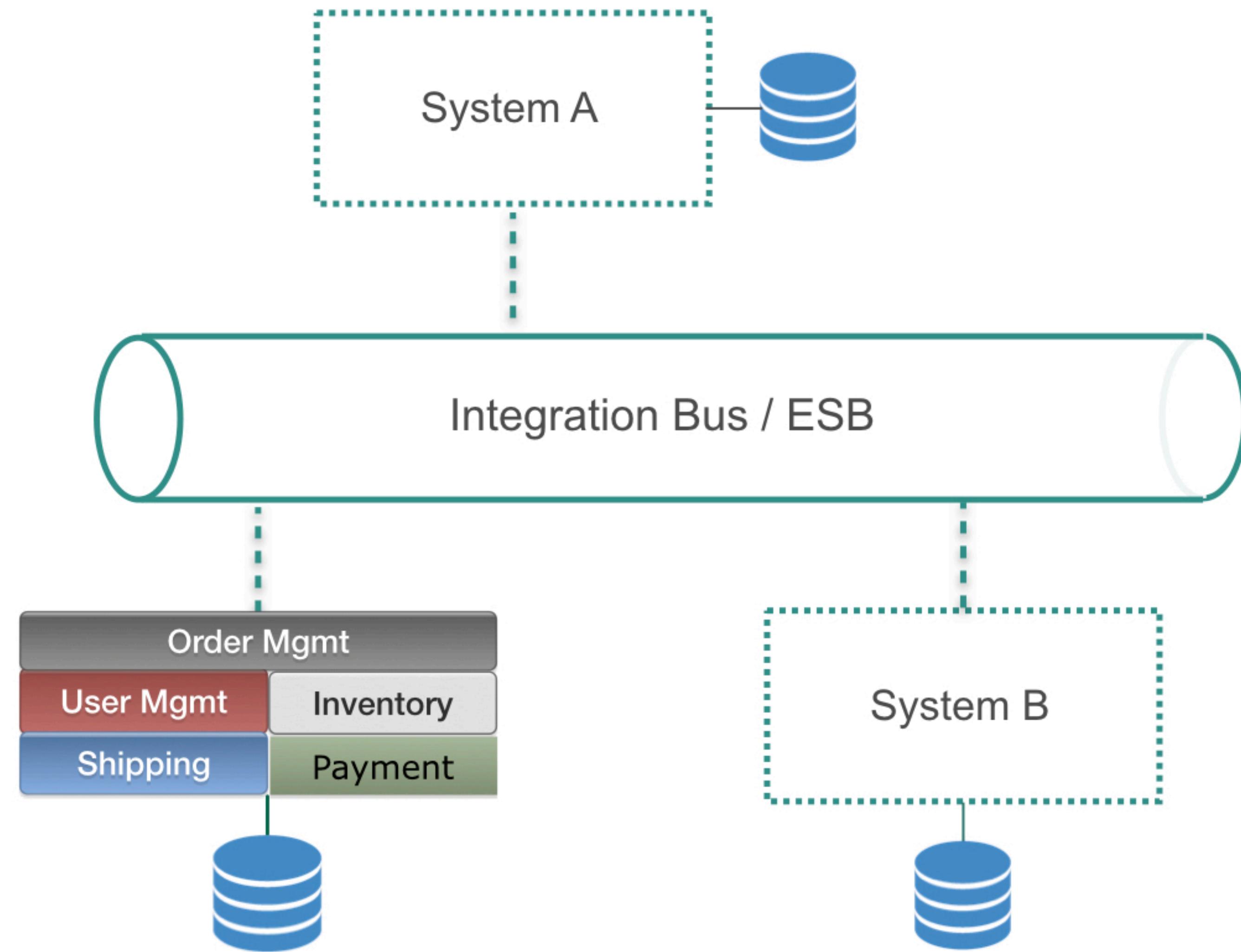


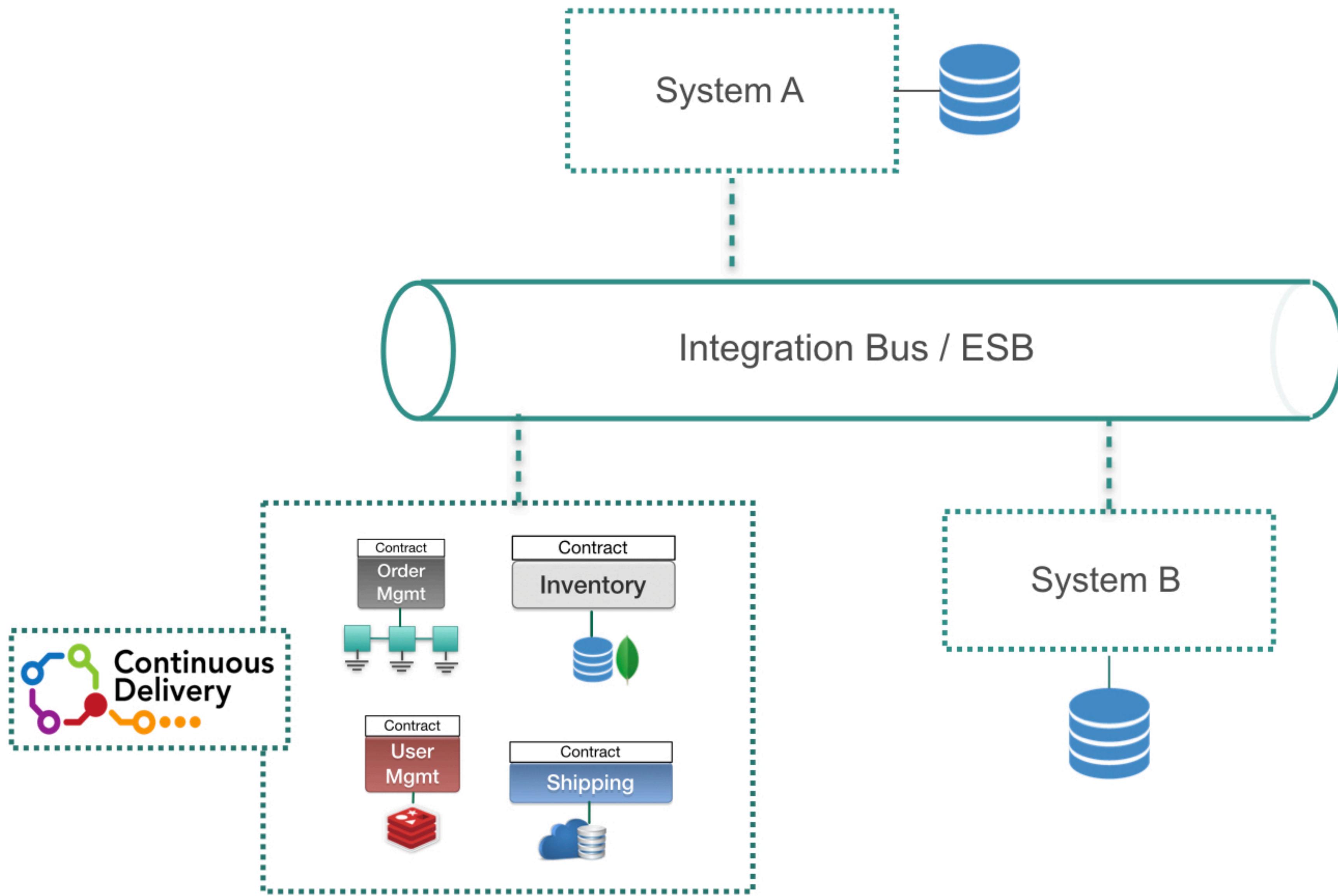
# Automating through the Platform

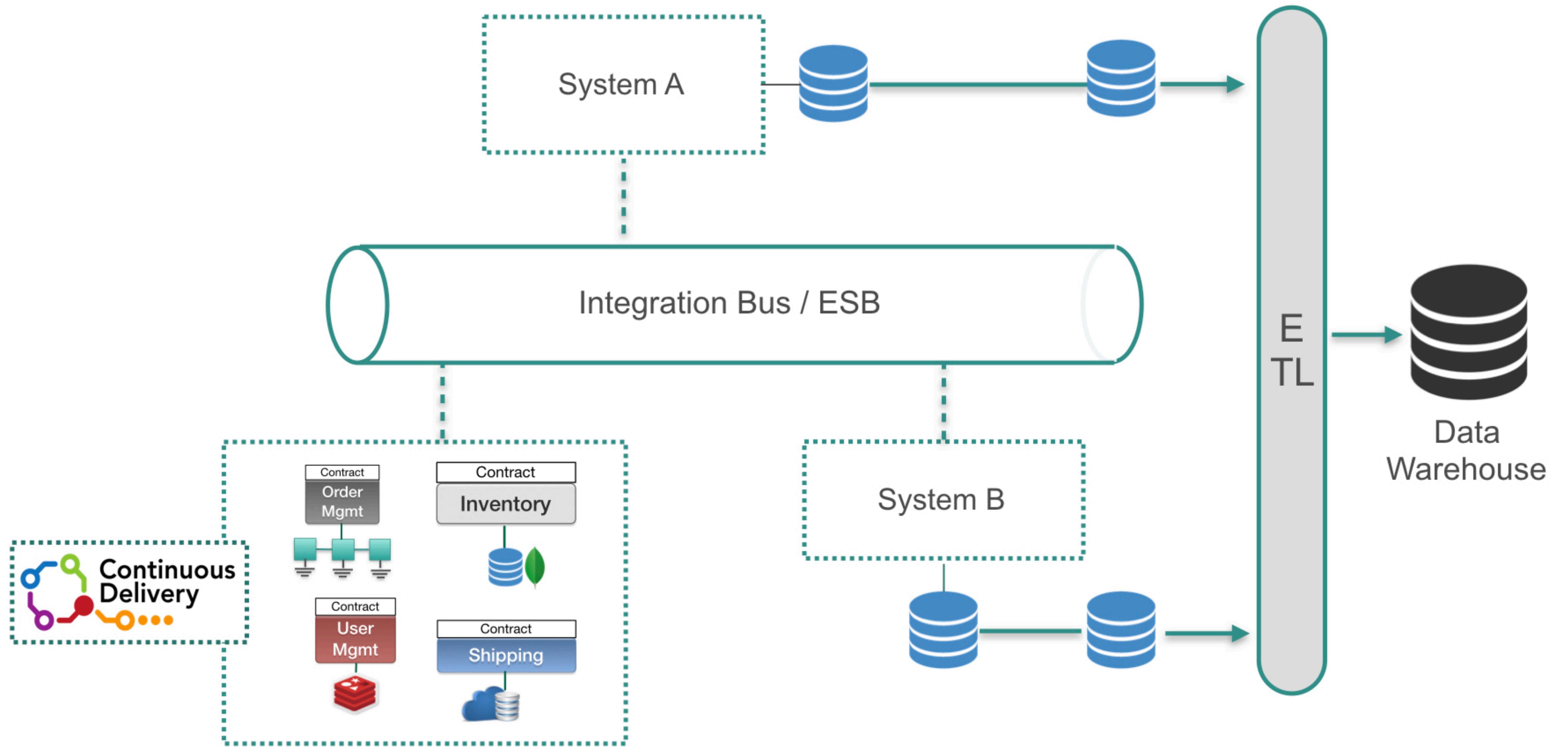


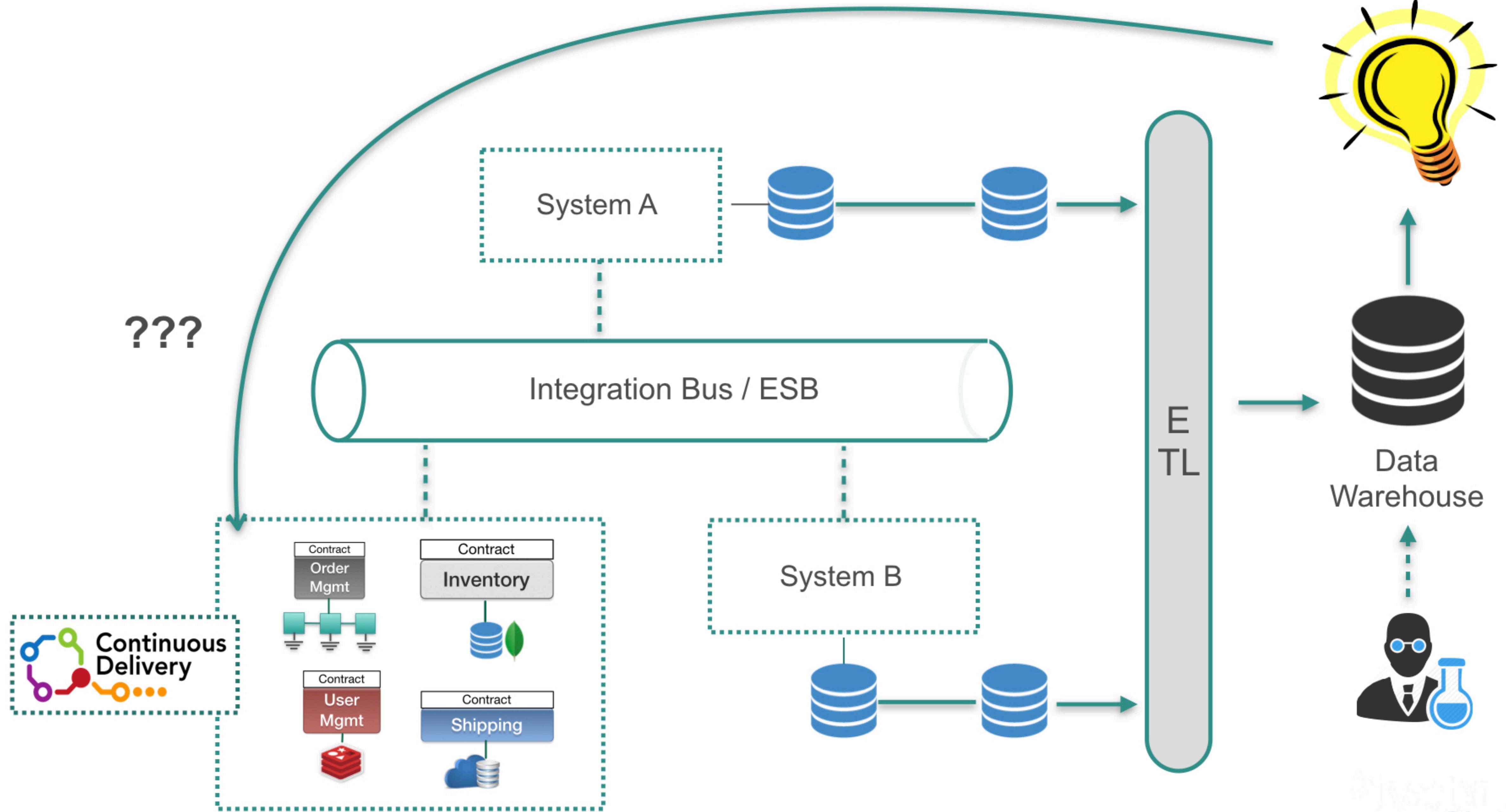


(c) Disney







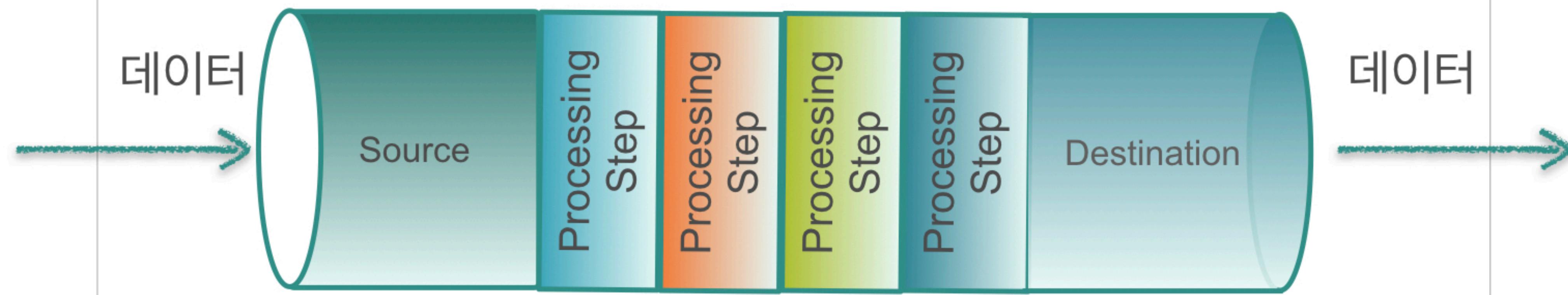


# 데이터 마이크로 서비스?

```
ifconfig | grep -Eo 'inet (addr:)?([0-9]*\.){3}[0-9]*' | grep -Eo '([0-9]*\.){3}[0-9]*' | grep -v '127.0.0.1' | head -n 1
```

```
| cut -d'.' -f4
```

## 일반적 데이터 파이프라인의 구조



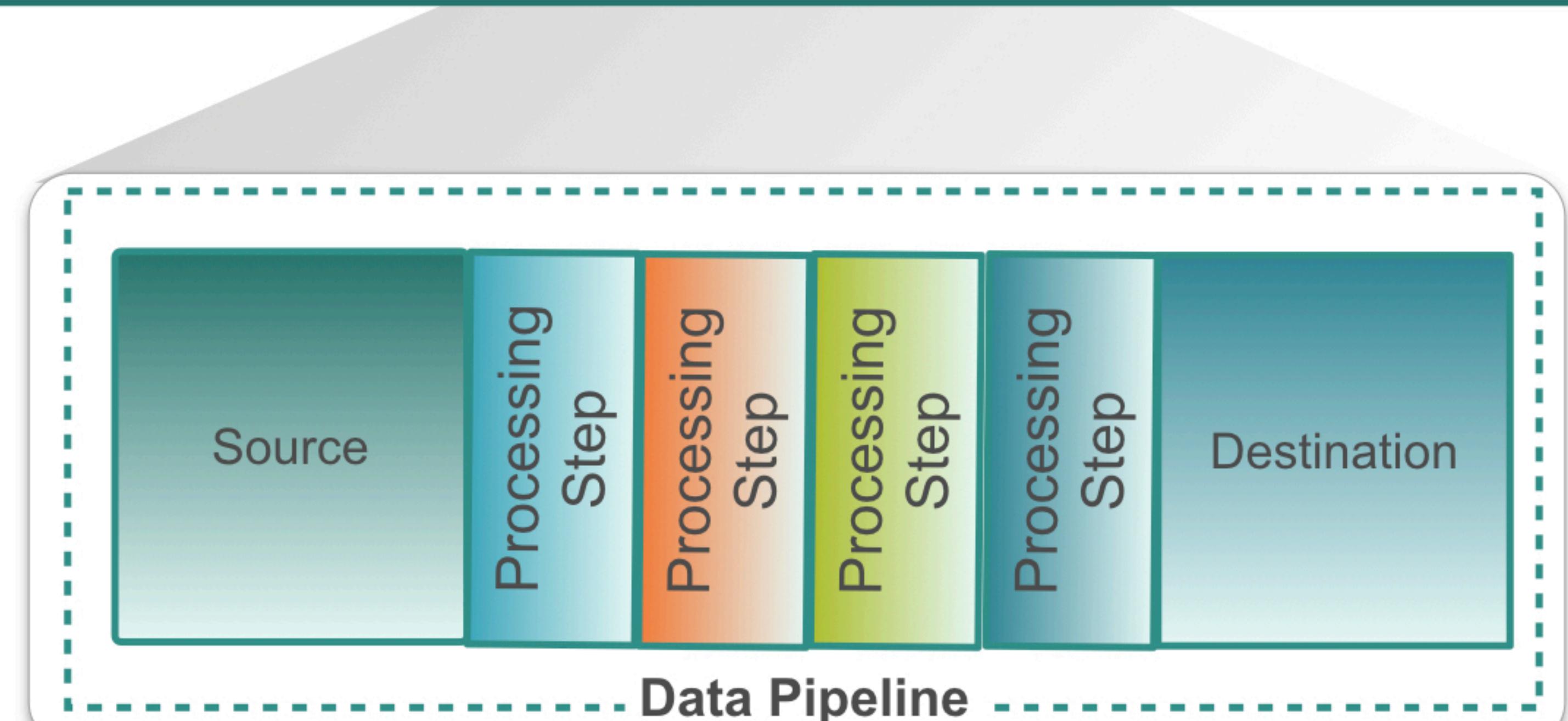
모놀리스와 동일



업그레이드

확장

재배포

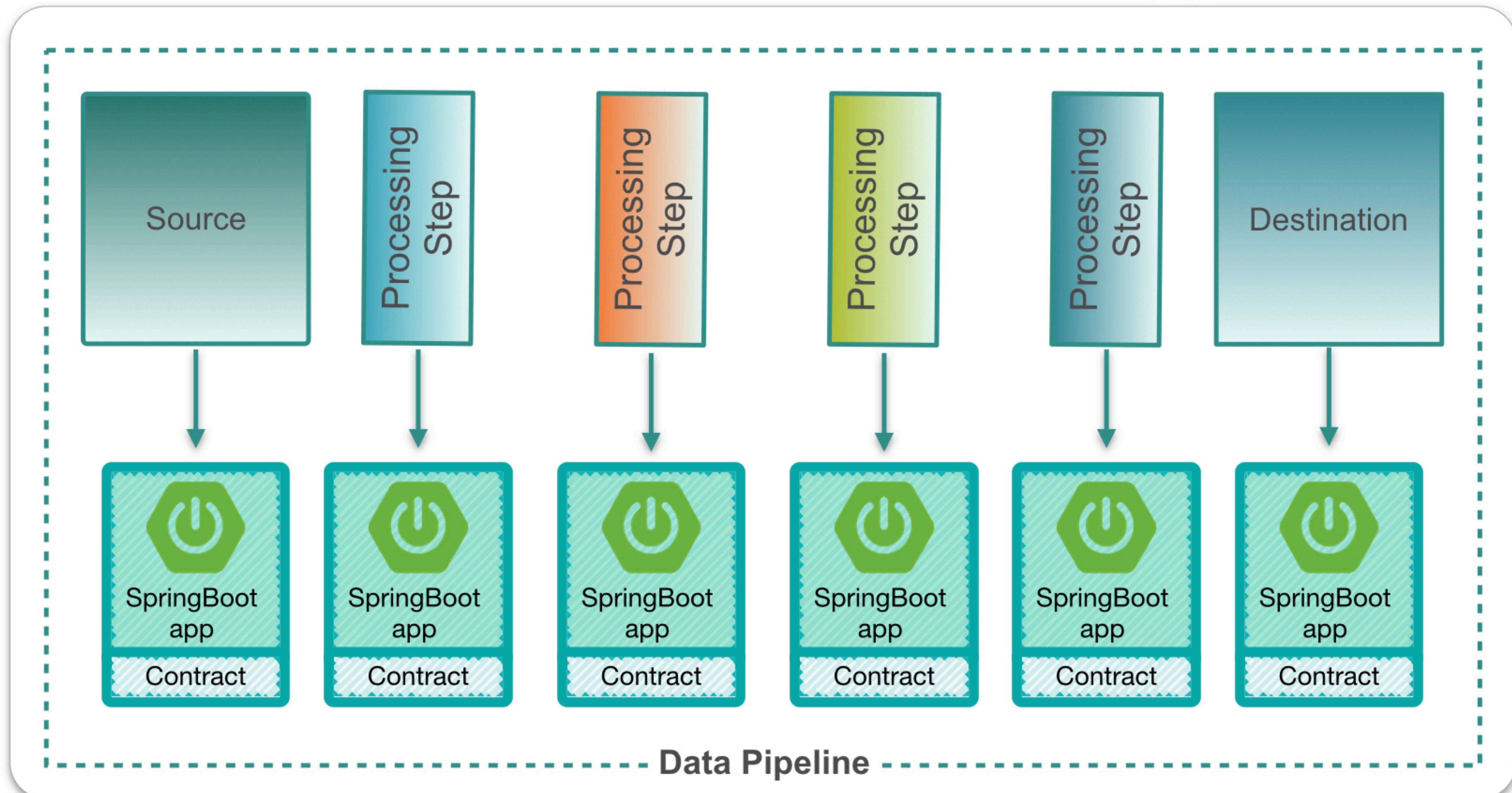


업데이트

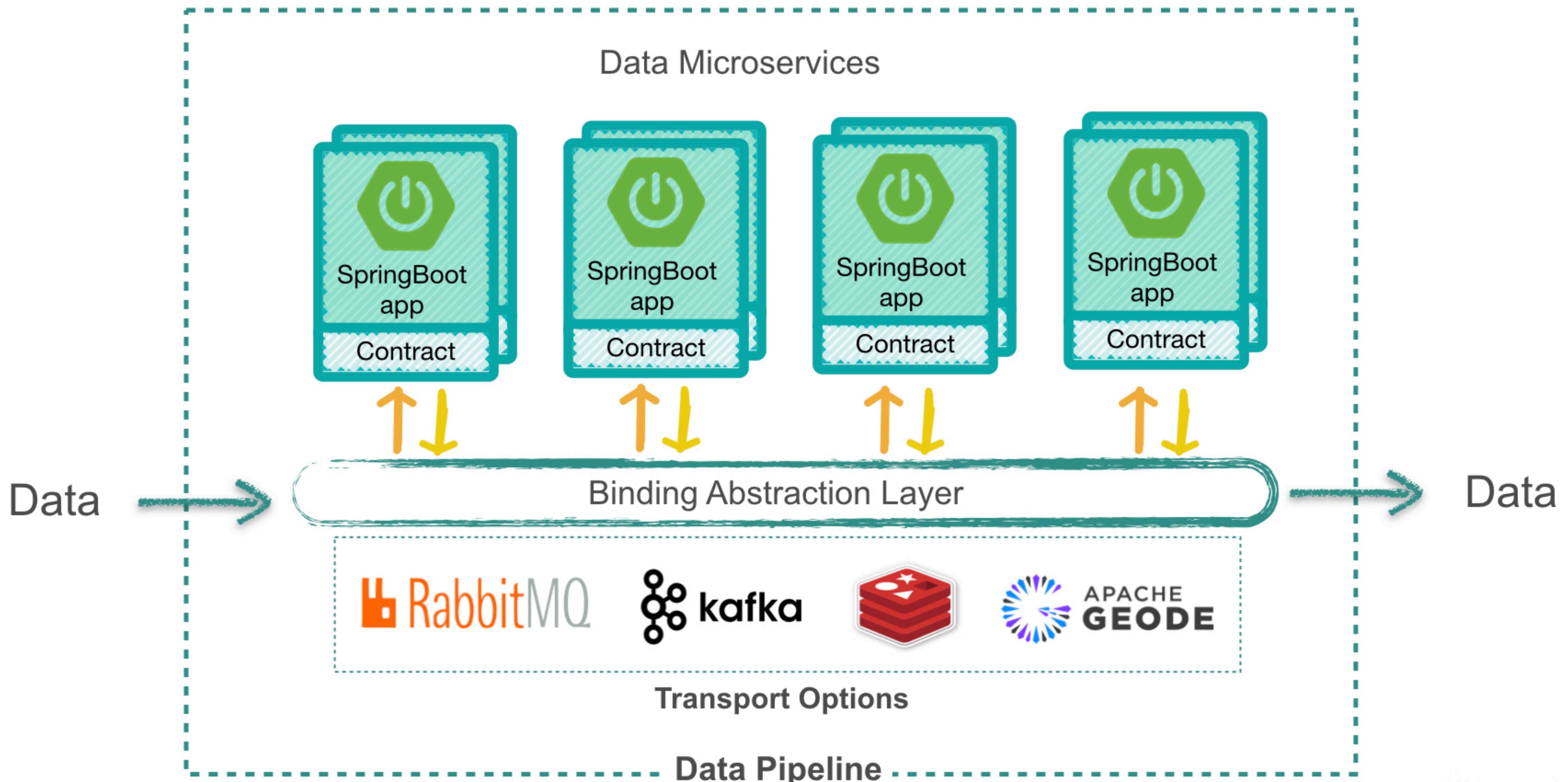
マイグ레이션

분산 처리





# Spring Cloud Stream



## 인프라 투명성



## 데이터 전송 투명성

데이터 파이프라인의  
시각적 디자인

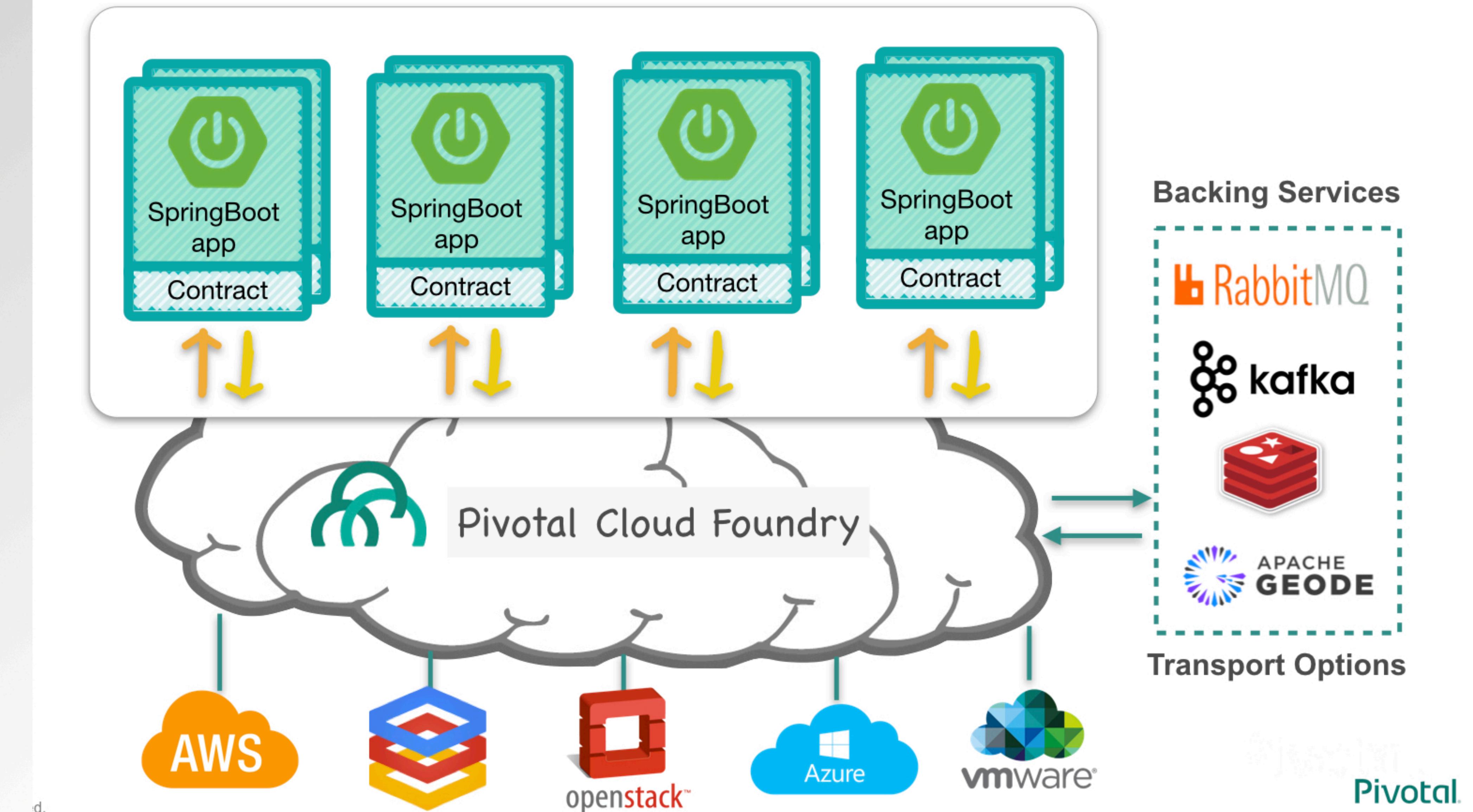
각종 지표의 개선

모니터링 개선

로그 취합

오토 힐링

오토 스케일링



## 인프라 투명성

## 데이터 전송 투명성

## 데이터 파이프라인의 시각적 디자인

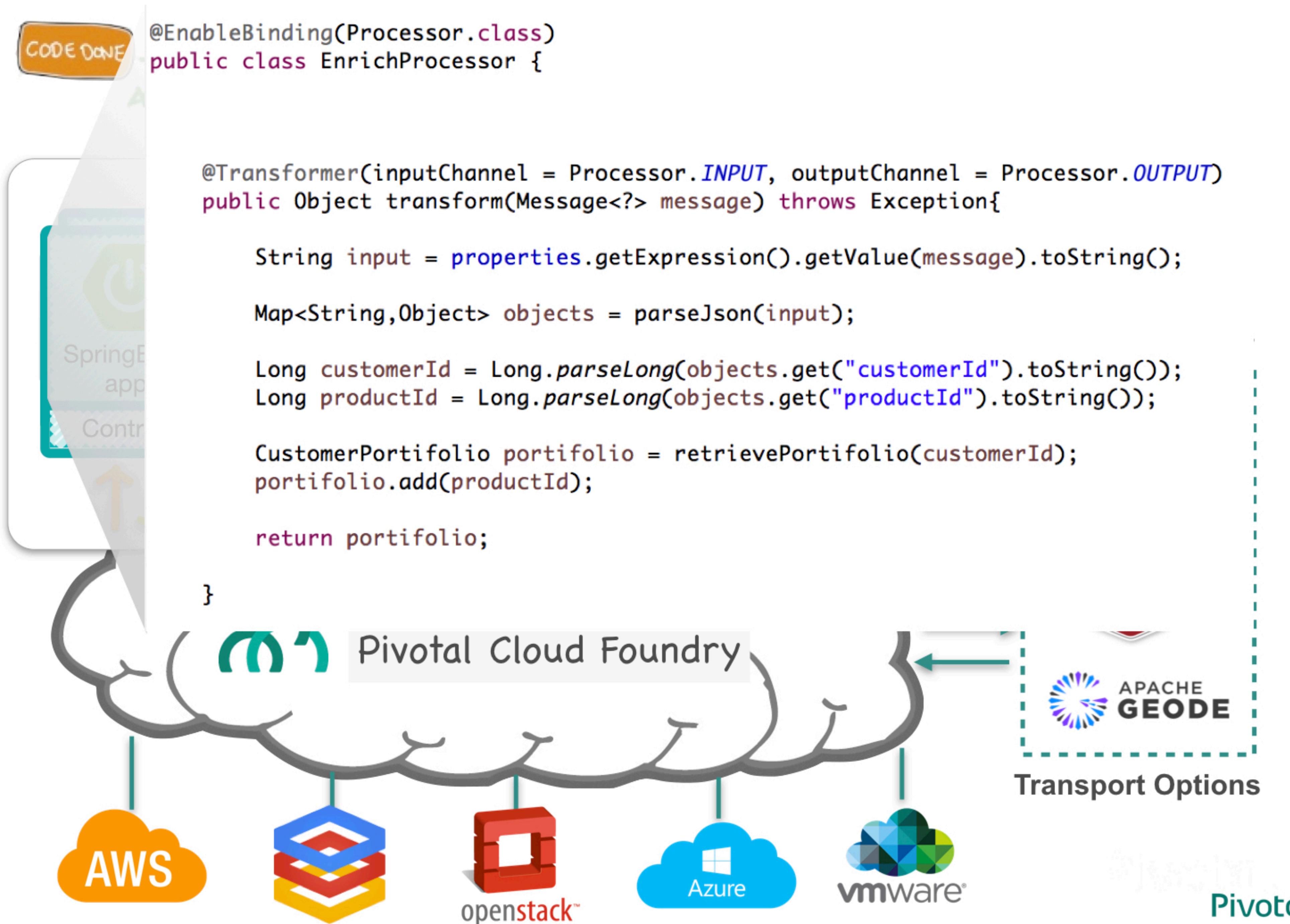
## 각종 지표의 개선

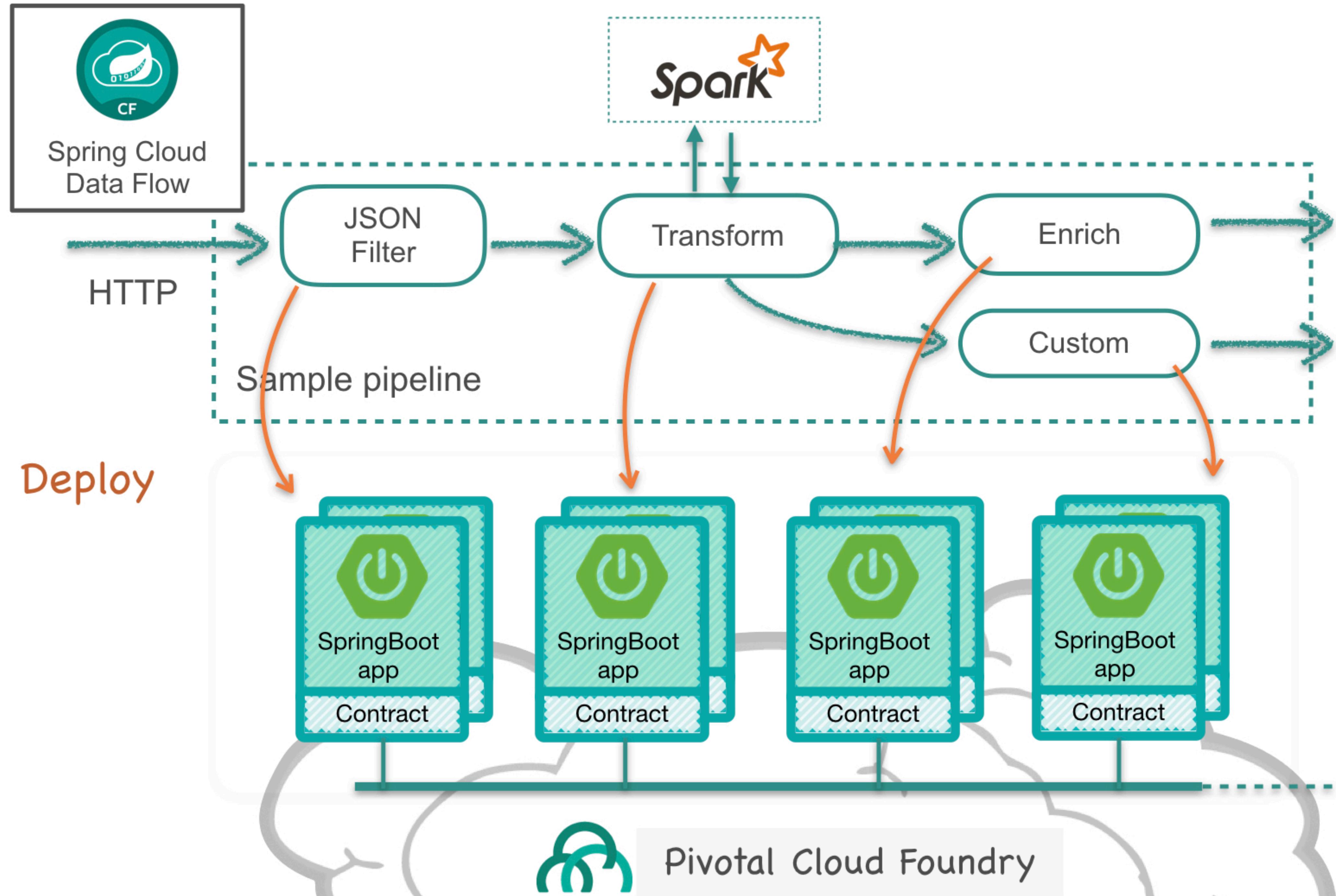
## 모니터링 개선

## 로그 취합

## 오토 힐링

## 오토 스케일링







**Spring Boot**



**Spring Cloud**

# Spring Cloud Data Flow

spring

APPS RUNTIME STREAMS ANALYTICS ABOUT

## Streams

Create a stream using text based input or the visual editor.

Definitions Create Stream

Create Stream Clear Layout Zoom: 91 % Auto Link Grid

```
1 fromgem = gemfire --region-name=Transaction --host-addresses=172.20.10.2:10334 | enrich | log
2 eval = :fromgem.enrich > pmml --modelLocation=http://clustering-service.local.pcfdev.io/clustering/model.pmml.xml --
  inputs='field_0=payload.distance.doubleValue(),field_1=payload.value.doubleValue()' --inputType='application/x-spring-tuple' --
  -outputType='application/json' | log
3 result = :eval.pmml > filter --expression=payload.output.result.toString().equals('2') | gemfire --region-name=Suspect --
```

source

fromgem

eval

result

gemfire

file

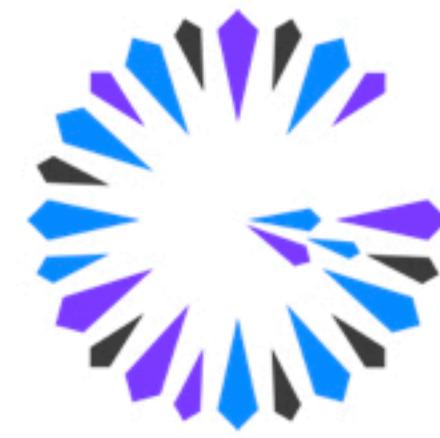
ftp

gemfire

gemfire-cq

Pivotal

file	aggregator	aggregate-counter
ftp	bridge	cassandra
gemfire	filter	counter
gemfire-cq	groovy-filter	field-value-counter
http	groovy-transform	file
jdbc	httpclient	ftp
jms	pmmi	gemfire
load-generator	scriptable-transform	gpfdist
loggregator	splitter	hdfs
mail	tasklaunchrequest-transform	hdfs-dataset
mongodb	tcp-client	jdbc
rabbit	transform	log
s3		mongodb
sftp		pgcopy
syslog		rabbit
tcp		redis-pubsub
tcp-client		router
time		s3
trigger		sftp
triggertask		task-launcher-cloudfoundry
twitterstream		task-launcher-local
		task-launcher-yarn
		tcp
		throughput
		websocket



APACHE  
**GEODE**



Greenplum

The logo icon is a green circle containing a stylized white 'G' shape.

kafka

The logo icon is a black graphic of interconnected circles forming a network-like structure.

amazon  
web services

The logo icon features a cluster of orange 3D cubes.

Microsoft Azure

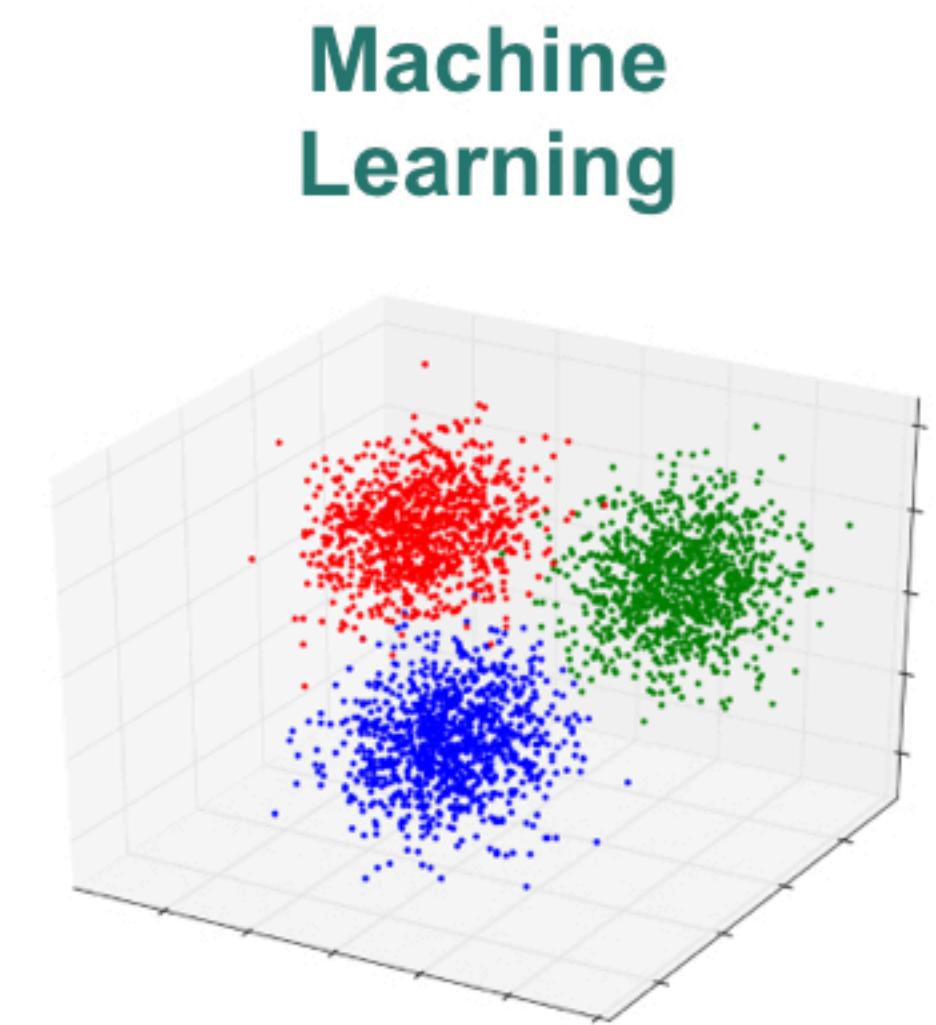
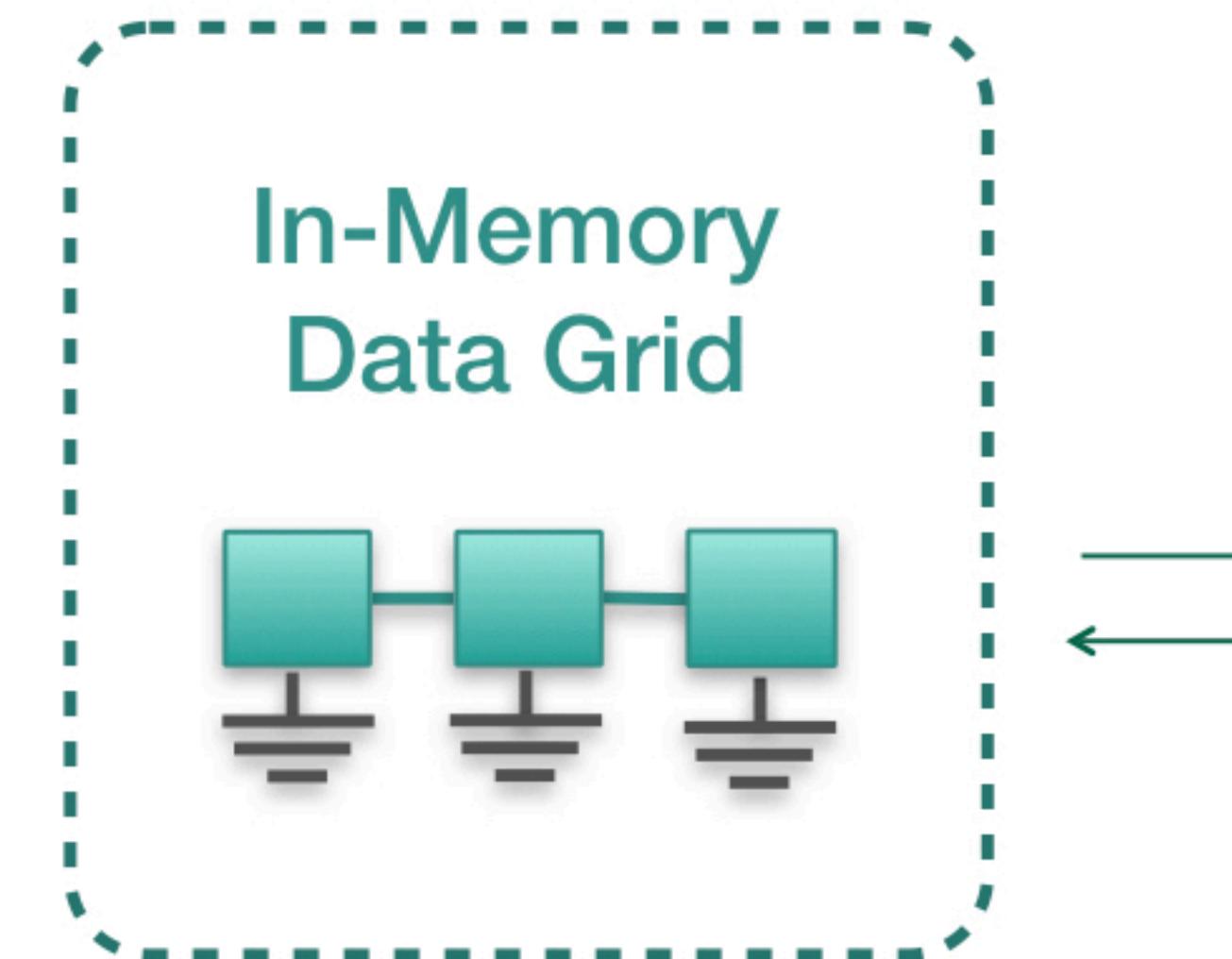
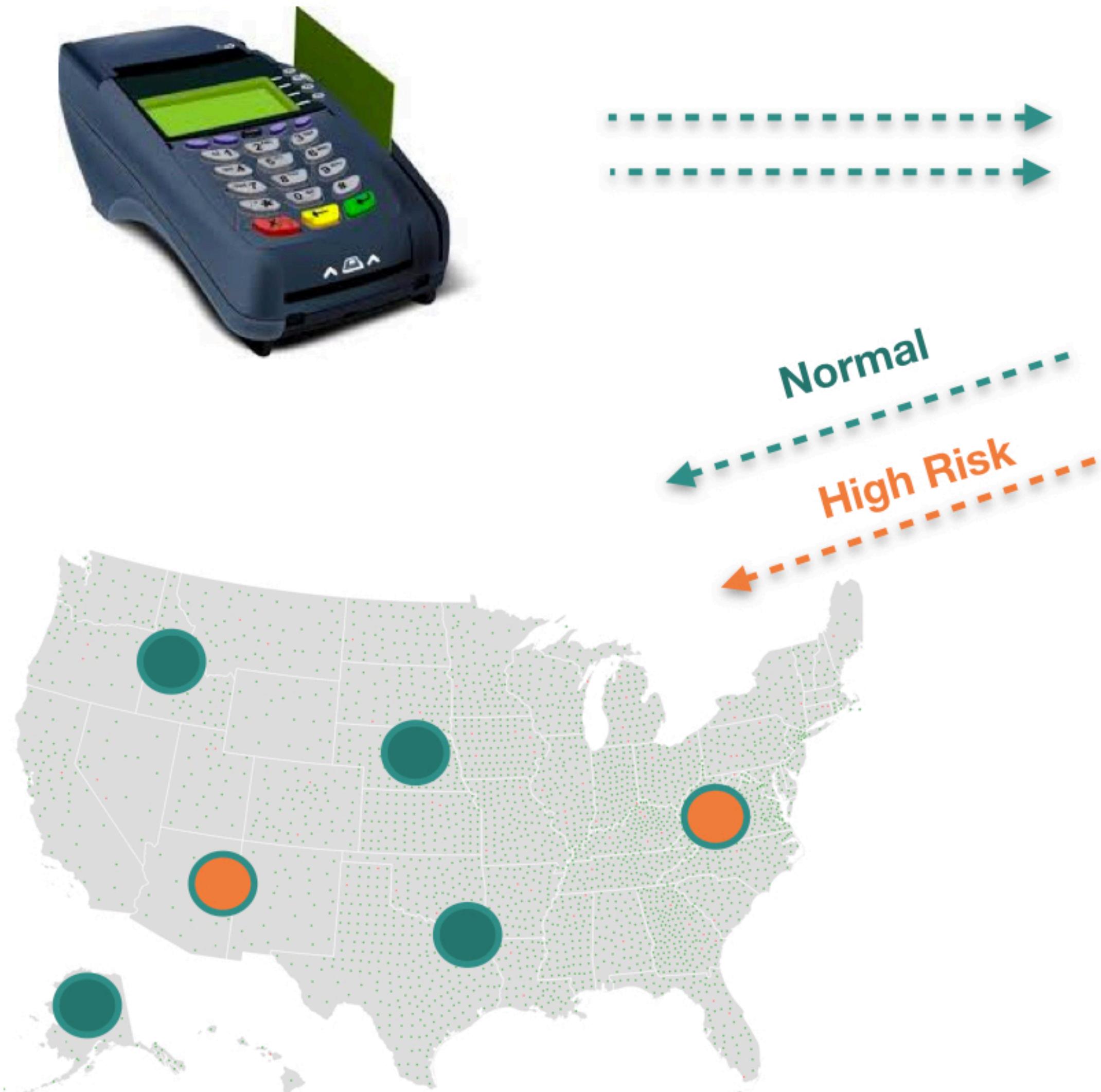
The logo icon is the classic blue Windows logo.

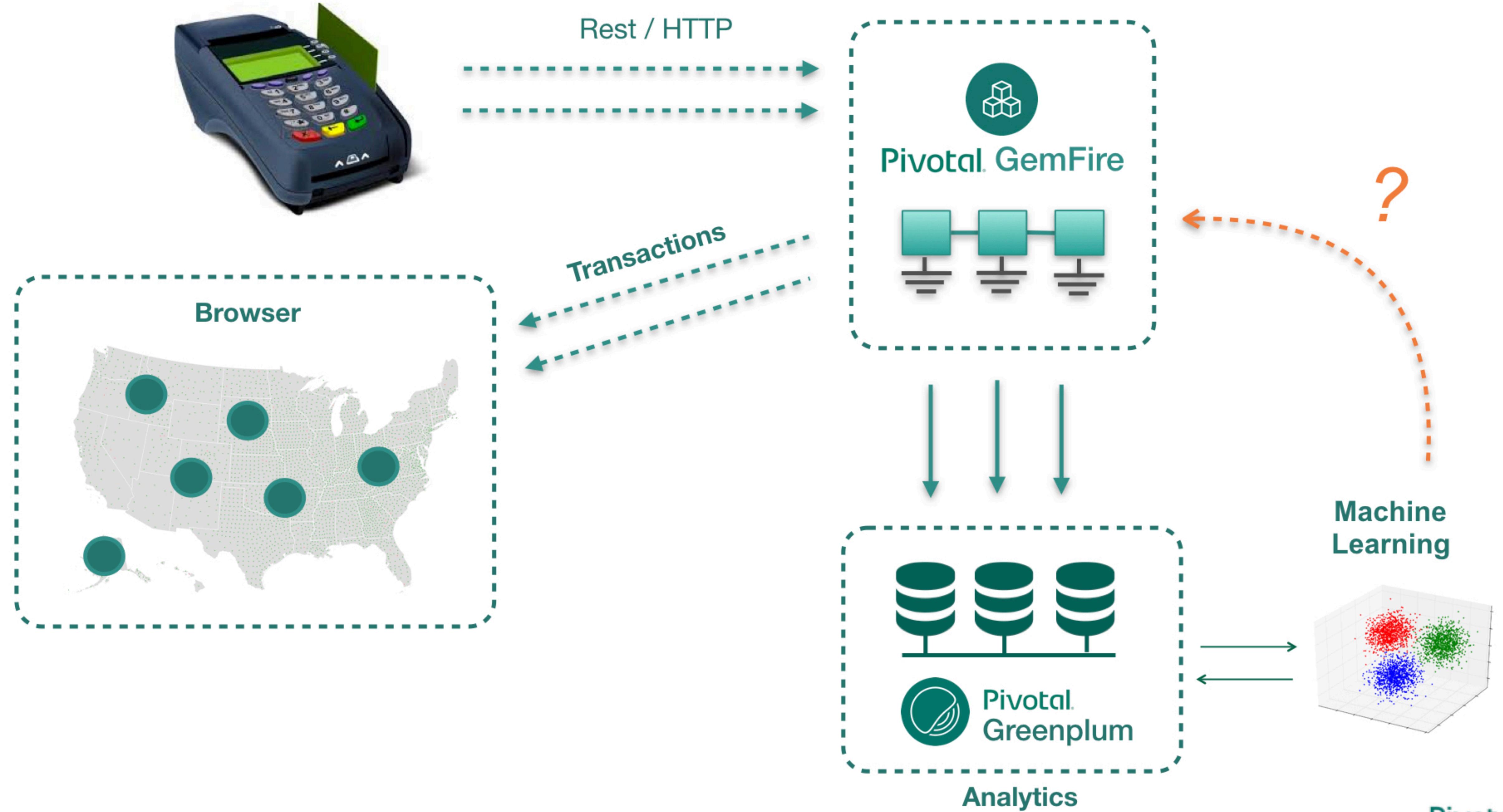
Google Cloud Platform

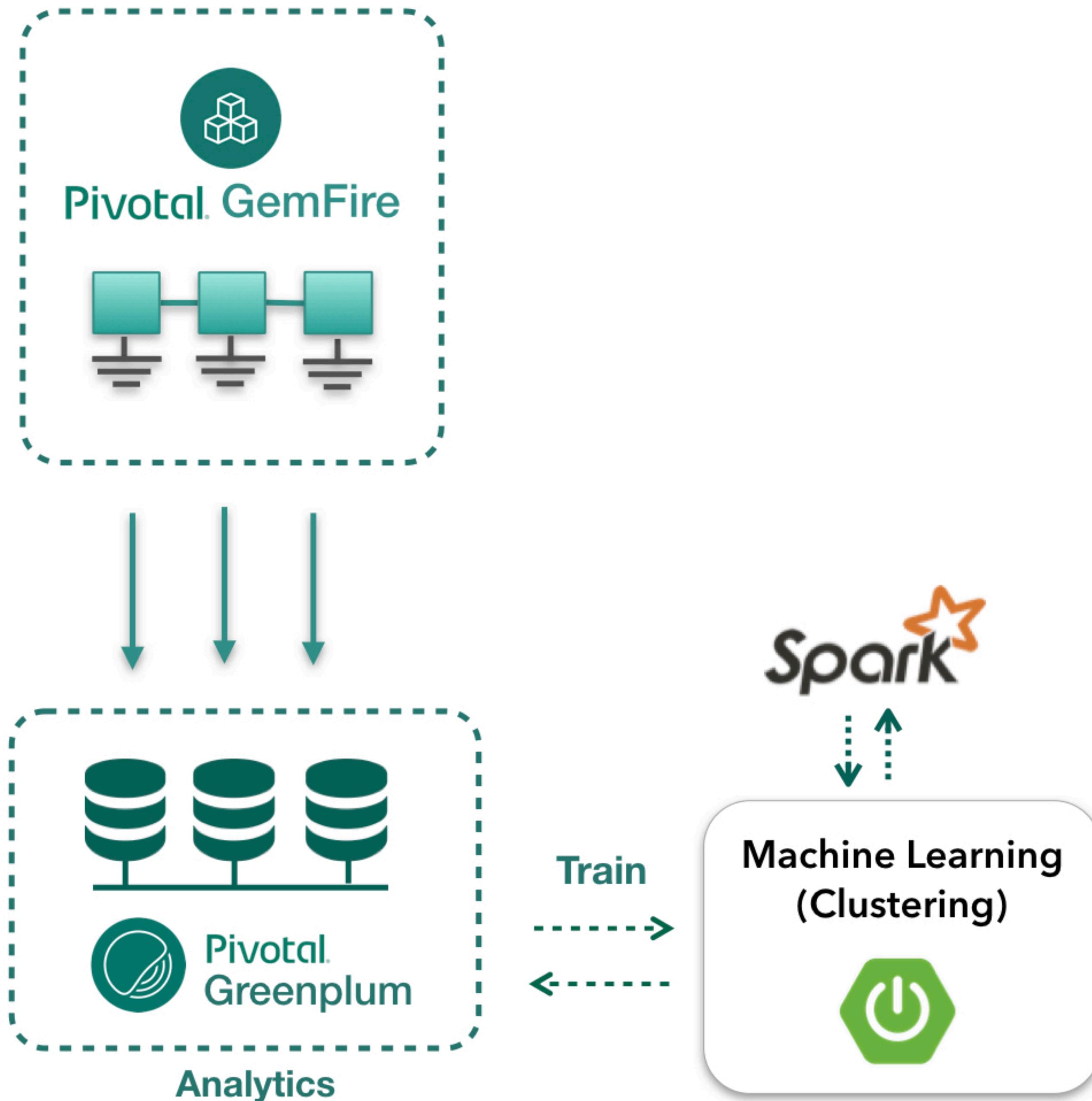
# demo

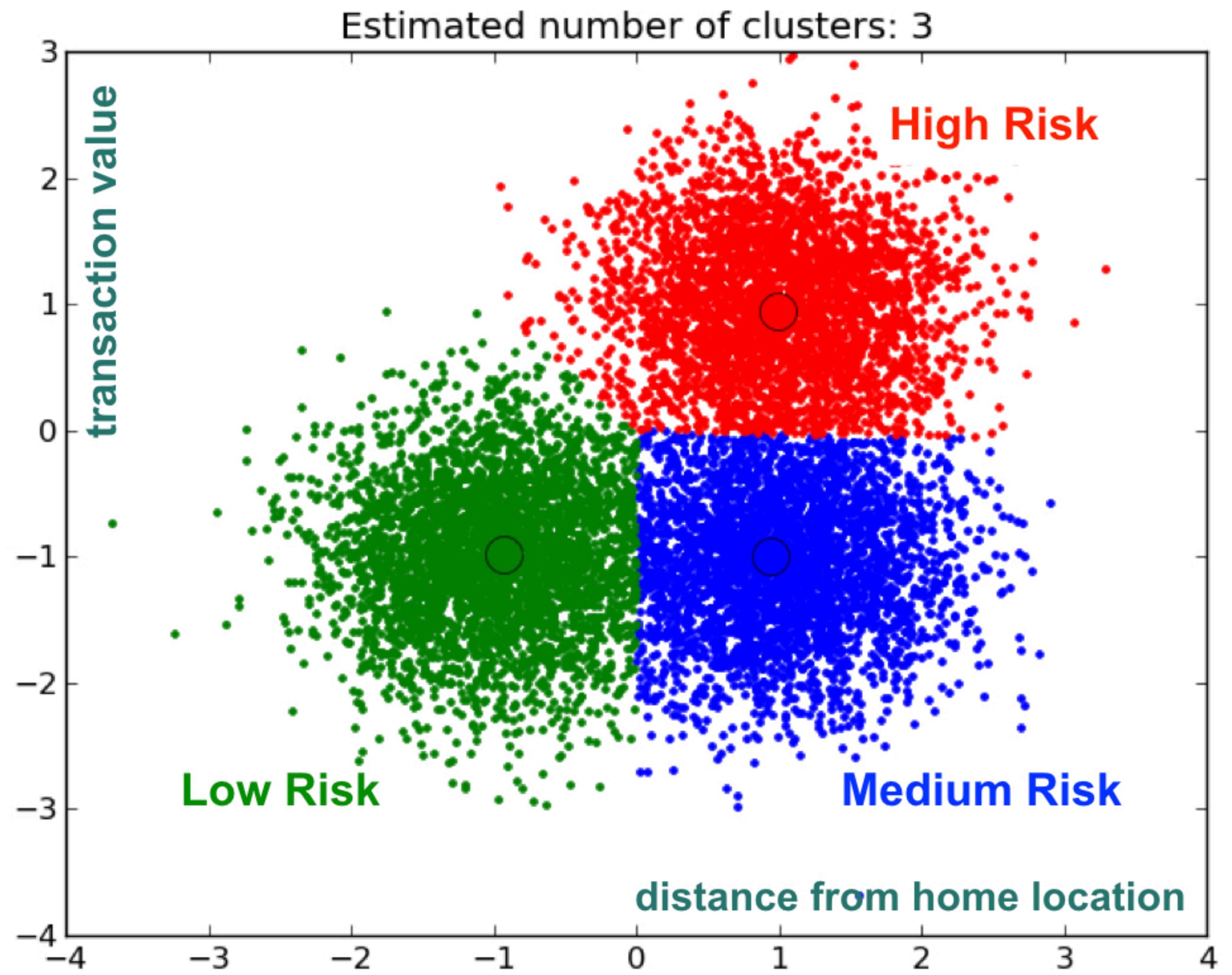
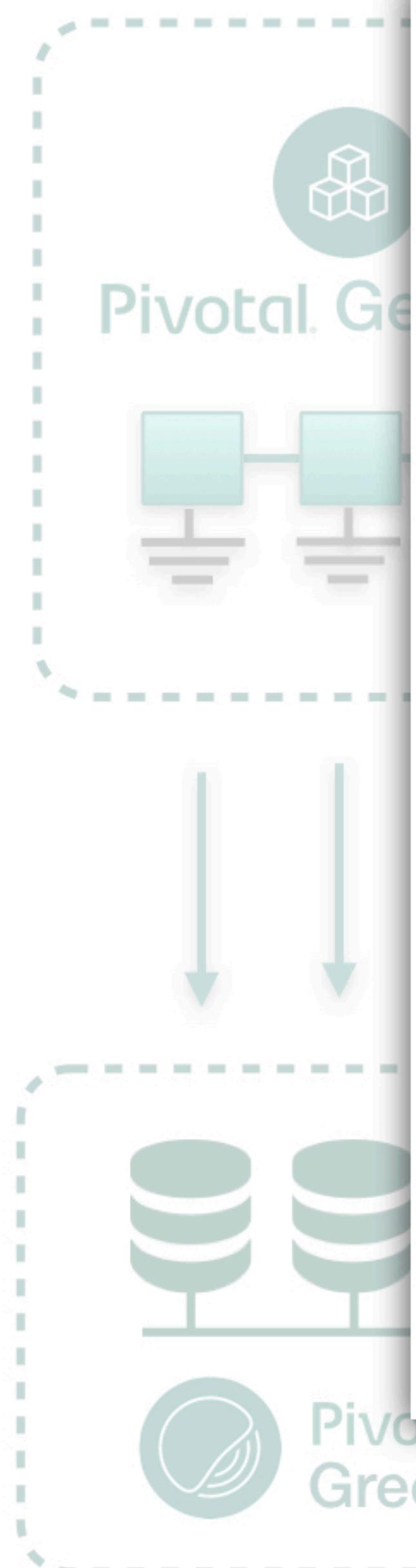
<https://github.com/melofred/FraudDetection-Microservices>

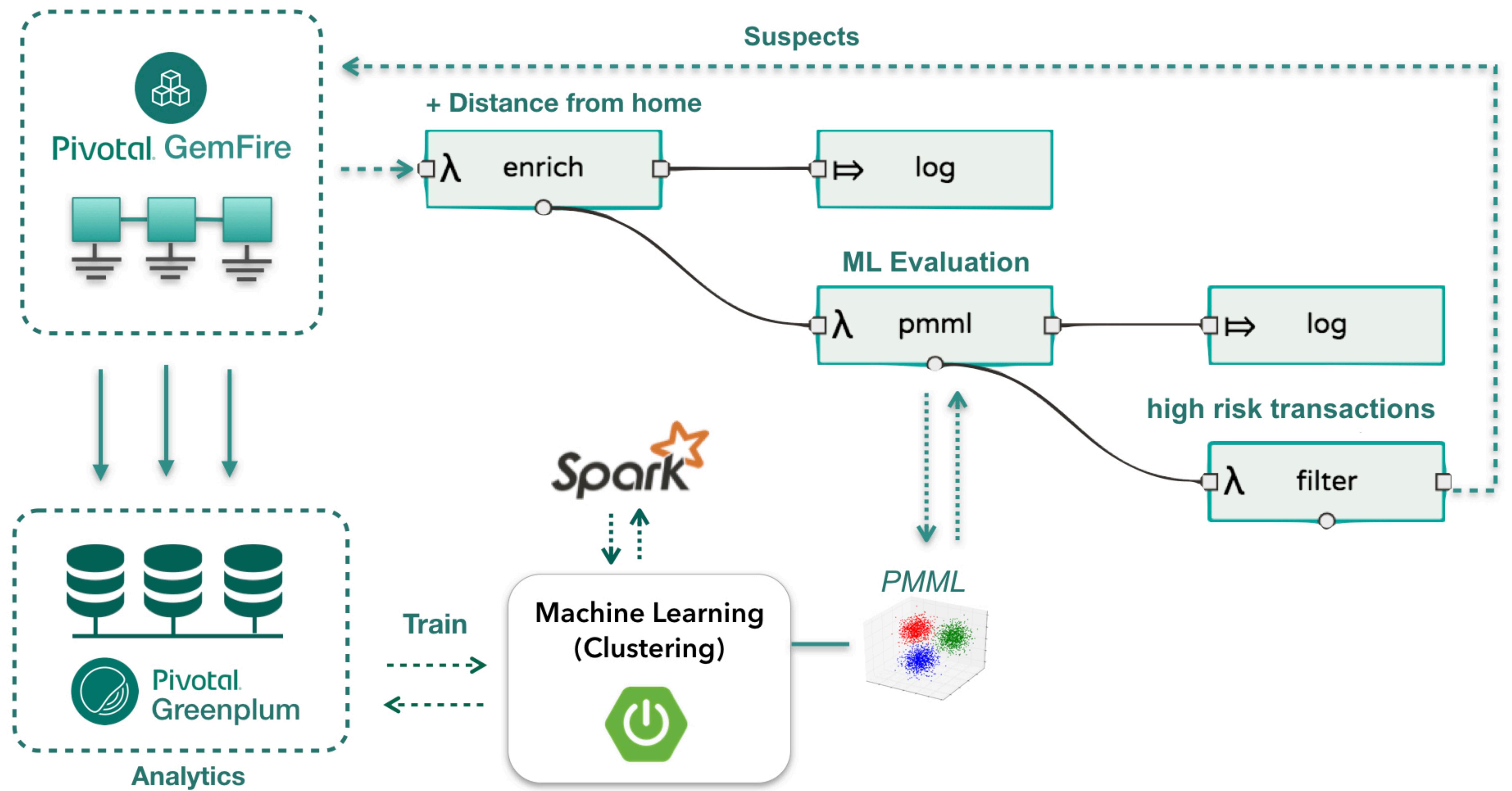
# DEMO

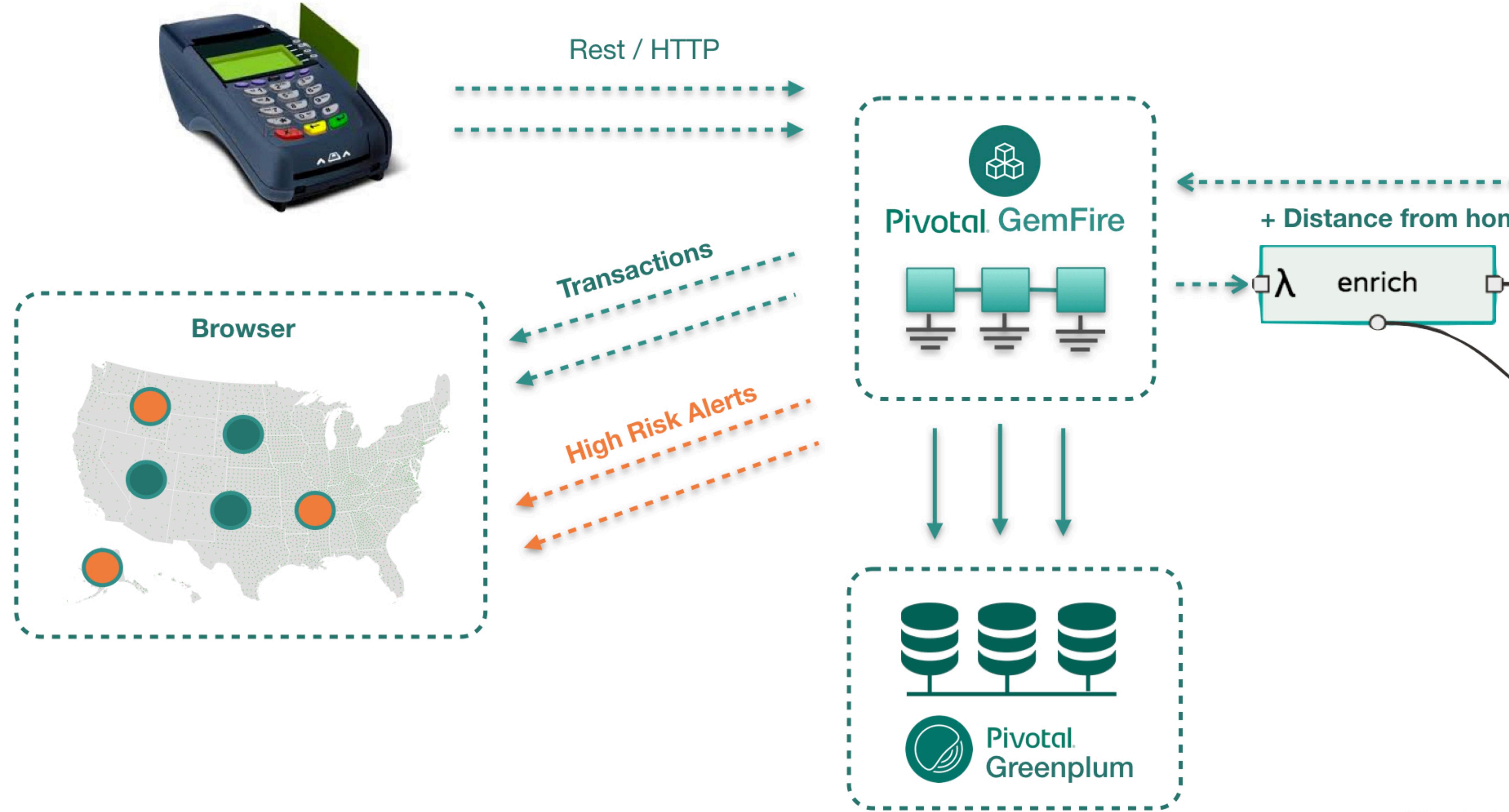


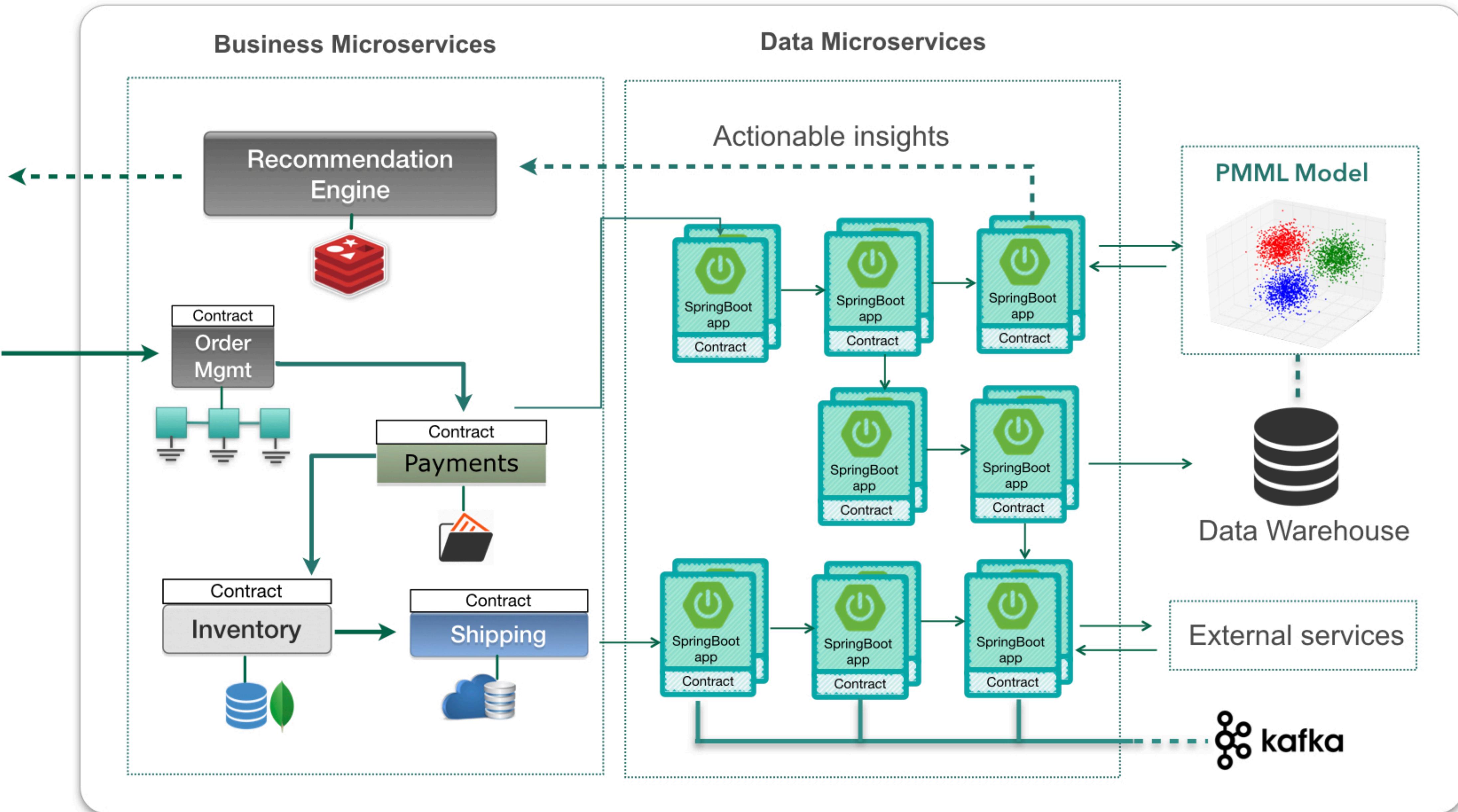












Pivotal Cloud Foundry

[SpringOnePlatform.io](http://SpringOnePlatform.io)

할인 코드: S1P200\_Jeong

SpringOne Platform

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December 4–7, 2017  
Moscone West, San Francisco

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[yjeong@pivotal.io](mailto:yjeong@pivotal.io)

Younjin Jeong, Principal Technologist