



Microservices Out in the Wild

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27 & 28 April 2020

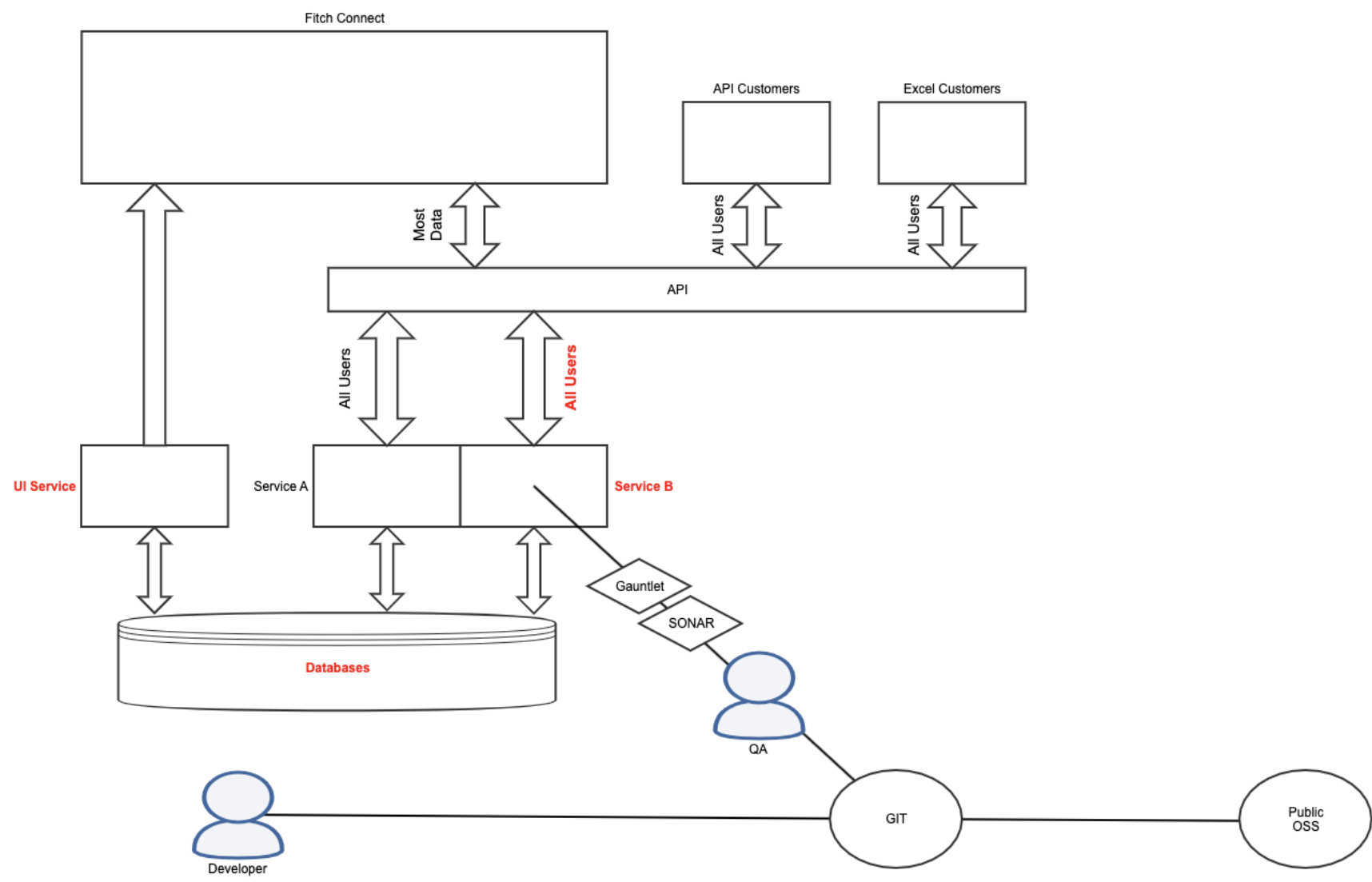
Vision

Developers deploying code to Production multiple times a day without the need for non-developer involvement or off-hours scheduling. Product empowered to release new features according to their desired schedules and target audiences. QA integrated in ways that allow laser focus on release features likely to impact stability.

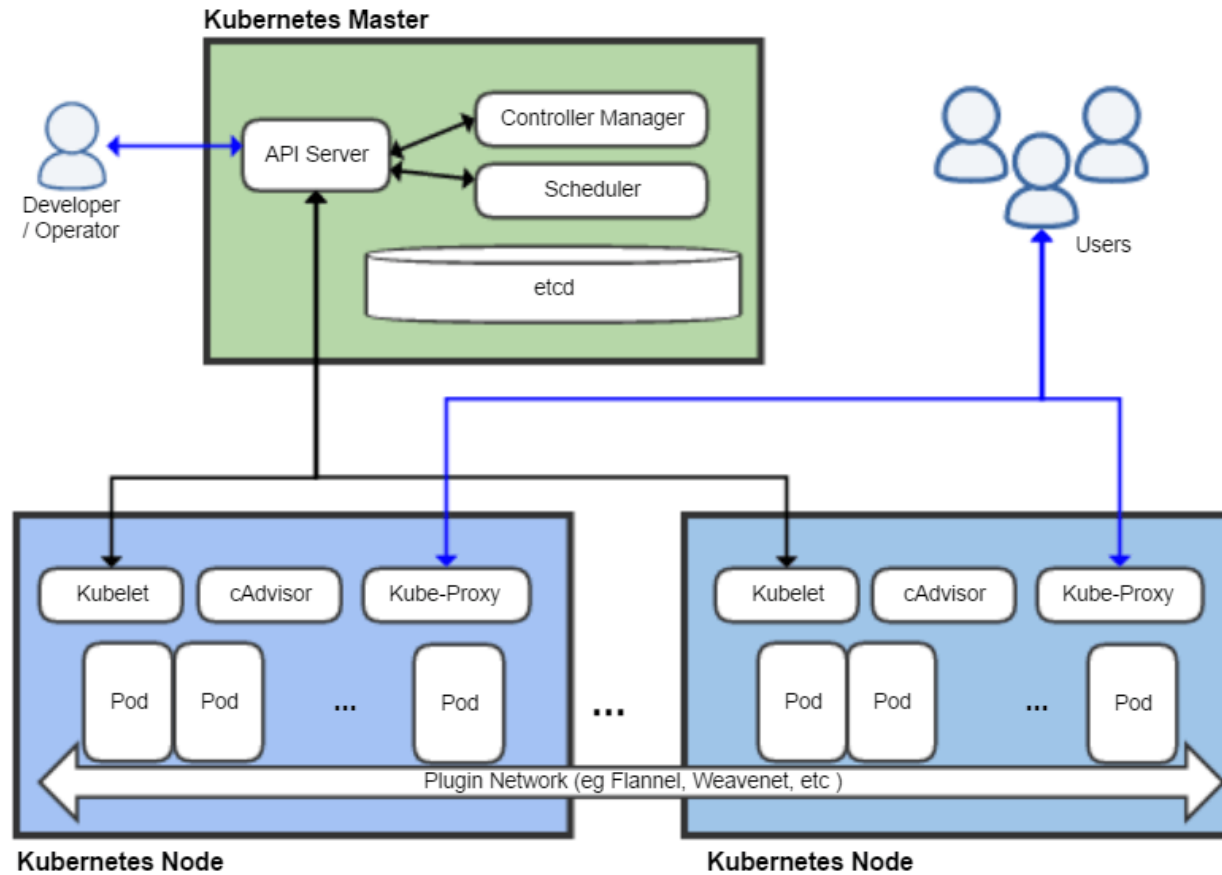
Problem Statement

Moving from a Continuous Integration practice to a Continuous Delivery practice requires work in architecture, development processes and testing.

Previous Situation





Kubernetes




```
246  if (Provider.class == roleTypeClass) {
247      Type providedType = ReflectionUtils.getLastTypeGenericArgument(dependen
248      2 Class providedClass = 1 ReflectionUtils.getTypeClass(providedType);
249
250      if (this.componentManager.hasComponent(providedType, dependencyDescript
251          || 3 providedClass.isAssignableFrom(List.class) || providedClass.
252
253      continue;
}
```

A "NullPointerException" could be thrown; "providedClass" is nullable here.

 Bug

 Major

 cert, cwe


Reliability

 Bugs

2


B

Security

 Security Vulnerabilities

0

A

 Security Hotspots

39


-

Maintainability

 Technical Debt

6 days

C

 Code Smells

319

-

New code

Since last release

1

B

0

A

0

-

0

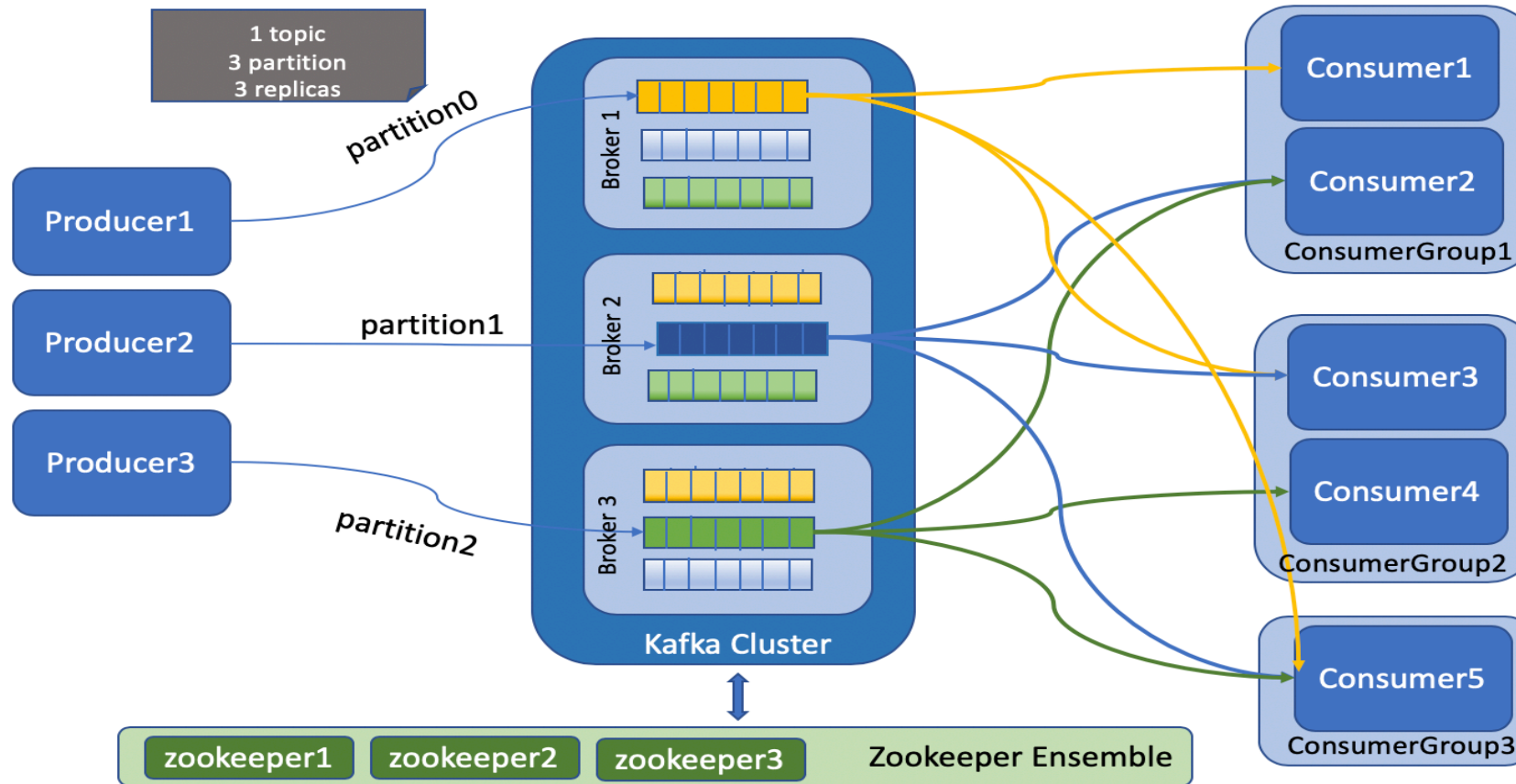
A

0

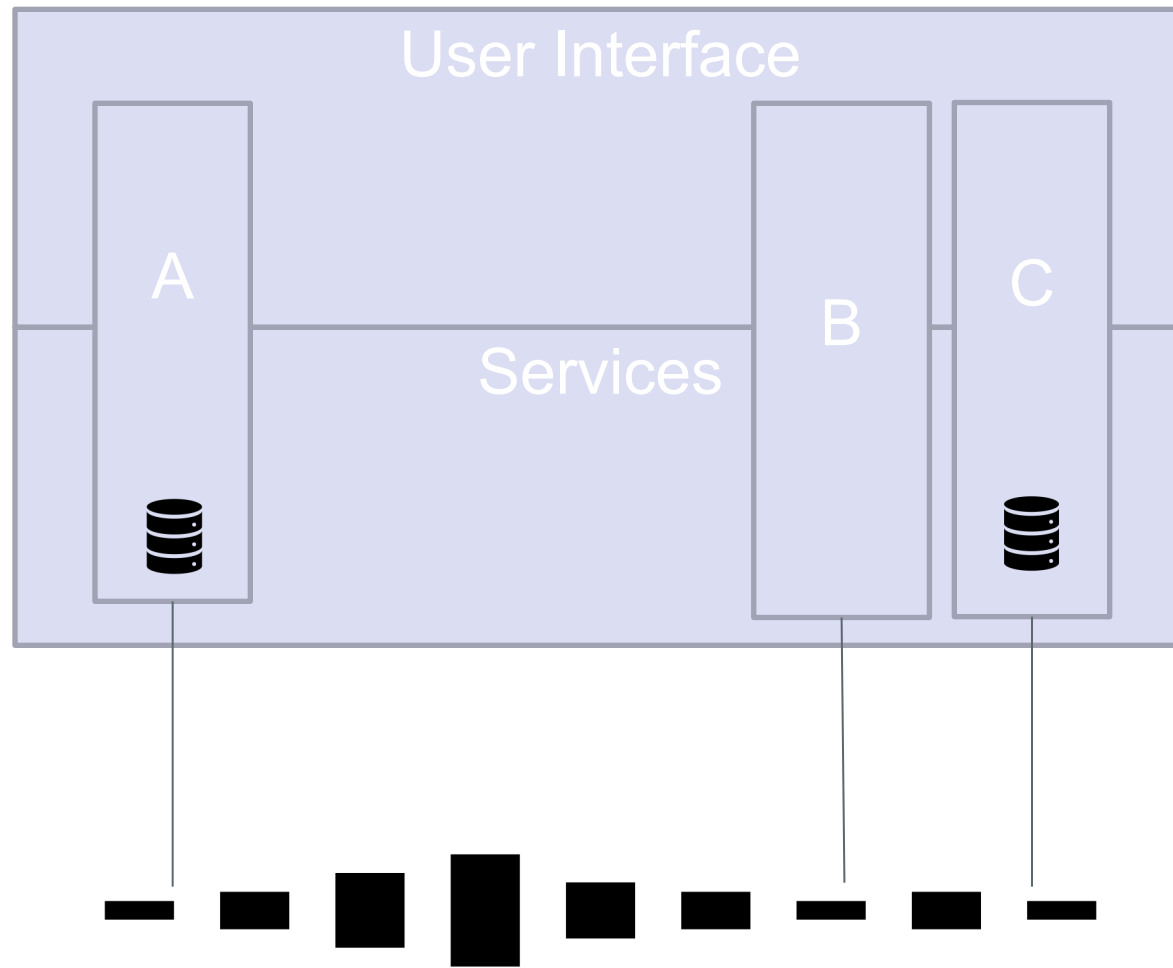
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Kafka

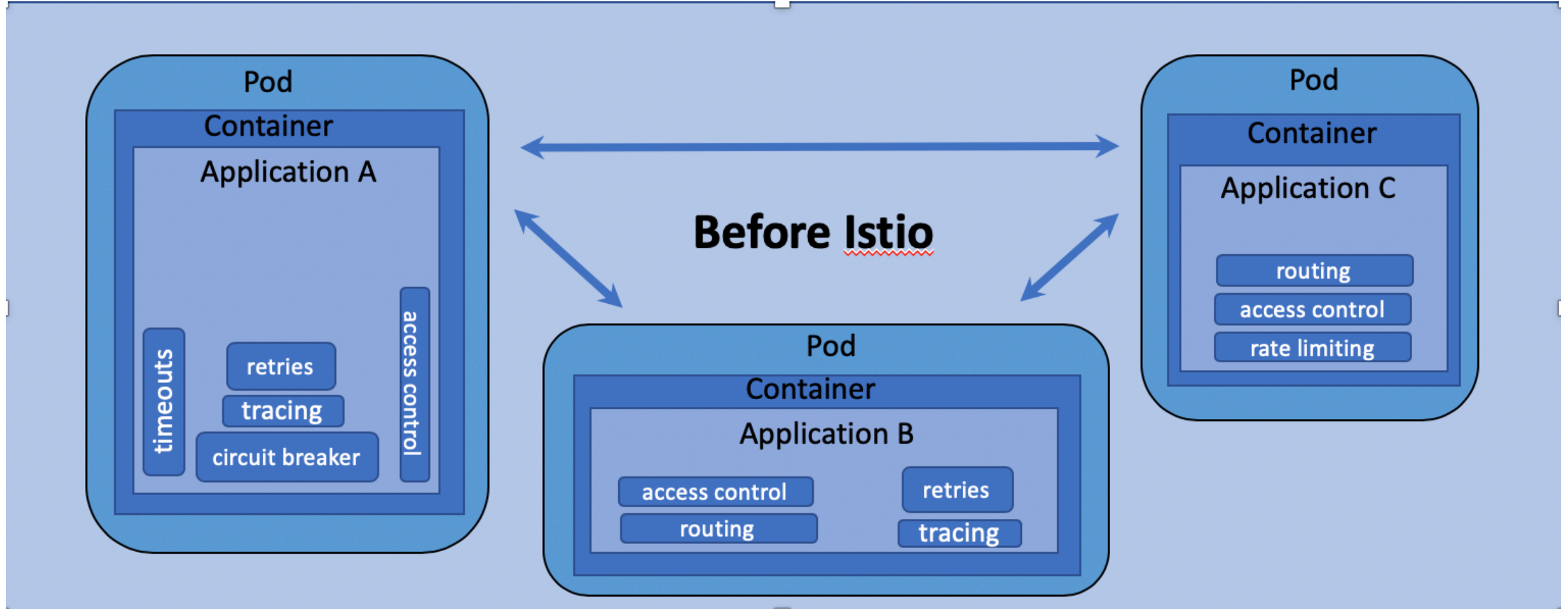
- Much more scalable – complexity thrown to the consumer



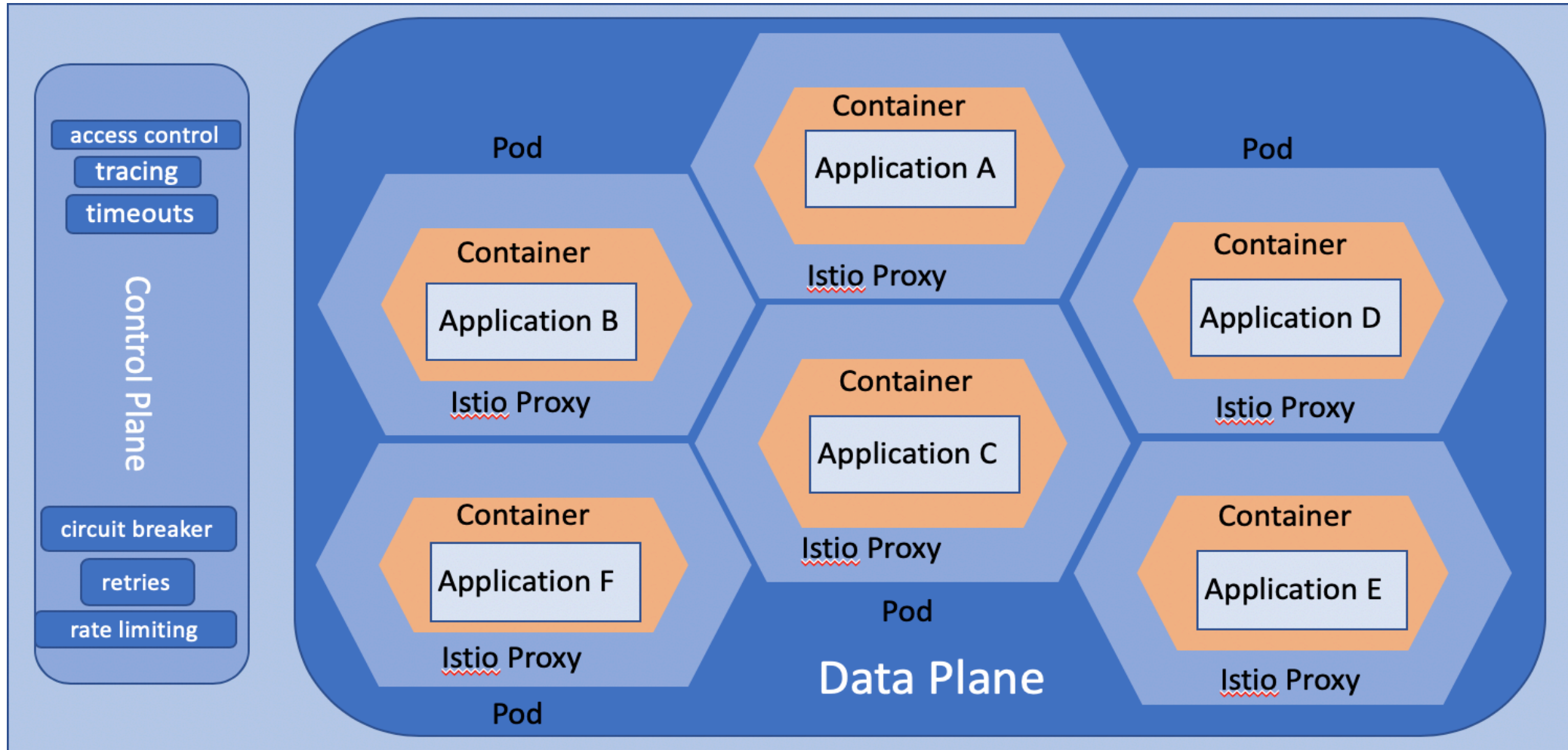
Target Situation: “Event Sourced Architecture”



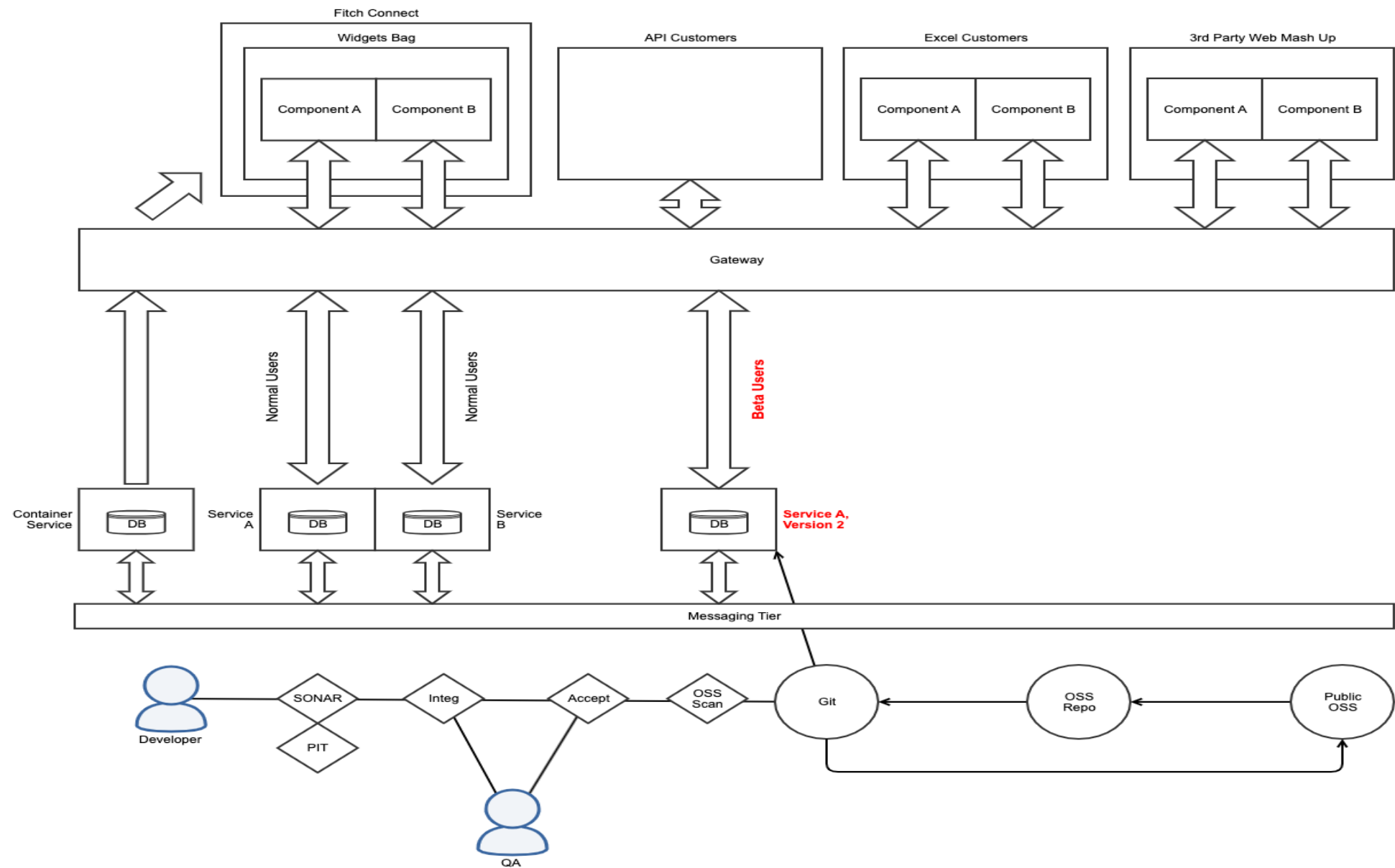
Why Service Mesh?



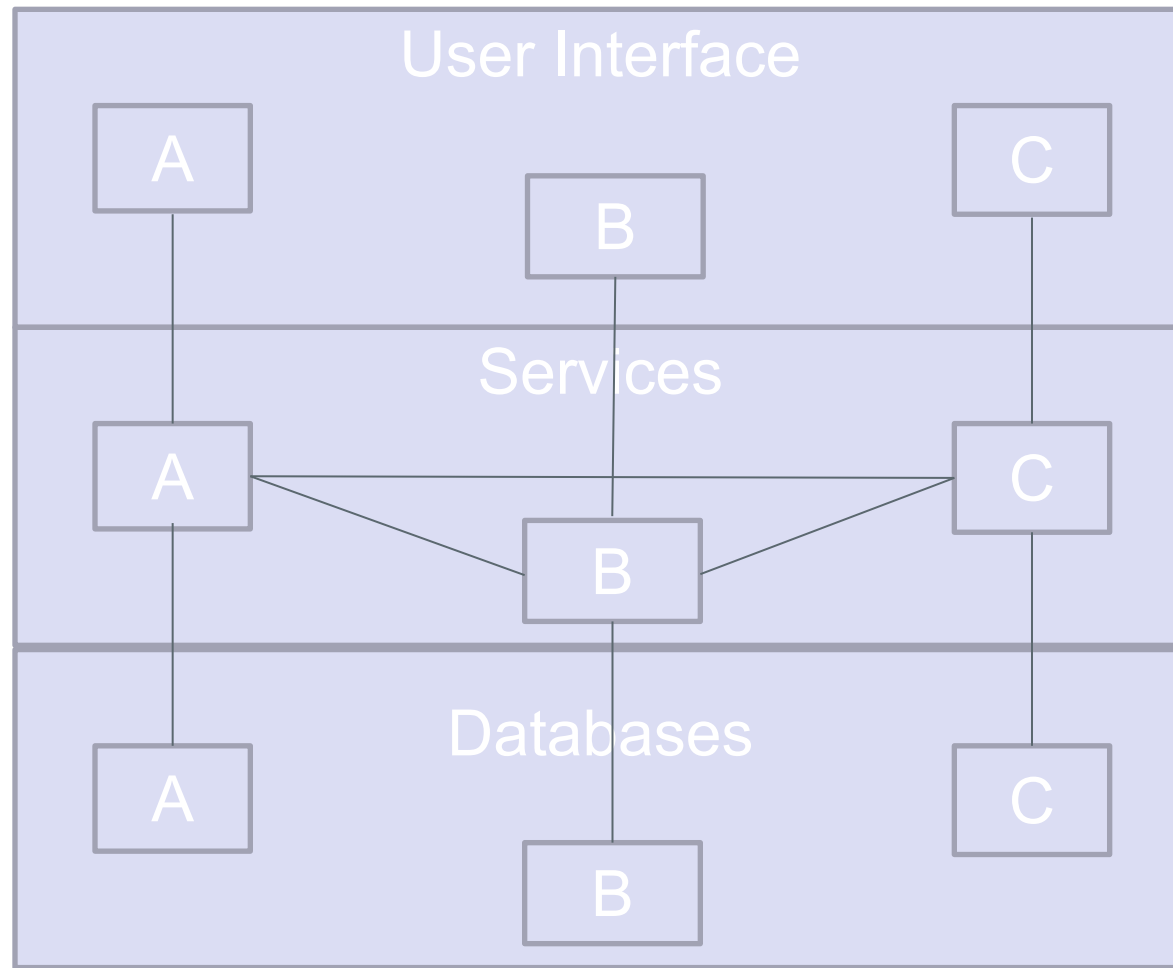
Why Service Mesh?



Continuous Delivery



New Situation



Demo

<https://login.fitchconnect.com/registration>

See for yourself on Katacoda...

<https://www.katacoda.com/fitchsolutions>

...and get the code on Github!

<https://github.com/FitchSolutions/goto-chicago-2020-monolith>

<https://github.com/FitchSolutions/goto-chicago-2020-ms>