

Architecting for Continuous Delivery with Microservices

FREE

Compliments of Pivotal

<http://bit.ly/cloud-native-book>

O'REILLY®

Migrating to Cloud-Native Application Architectures

Compliments of
Pivotal



Matt Stine

Session

One

Continuous Delivery with Microservices

Overview

ANDREW
NATOWE

CLOUD

Wahng

Speed
Safety
Scale
Mobility

Wahat

What?

- Twelve Factor Apps (<http://12factor.net>)
- Microservices
- Self-Service Agile Infrastructure
- API-based Collaboration
- Antifragility

A sepia-toned illustration featuring a unicorn on the left and a cat on the right. The unicorn is white with a long, flowing mane and a single horn. The cat is brown with a striped tail and is holding a revolver. They are set against a background of a city skyline at night with a grid pattern.

There Seems to Be Some
Hype...





Jessica Kerr @jessitron · Jan 20

@mstine If the distinguishing feature of microservices vs SOA is the way they connect, then is the name (focused on size) terrible?



3



12

...



Matt Stine

@mstine

@jessitron "microservices" is one of the worst naming disasters of our time



...

RETWEETS

12

FAVORITES

7



10:56 PM - 20 Jan 2015

Define: Microservice

Loosely coupled service oriented architecture with bounded contexts...

— Adrian Cockcroft

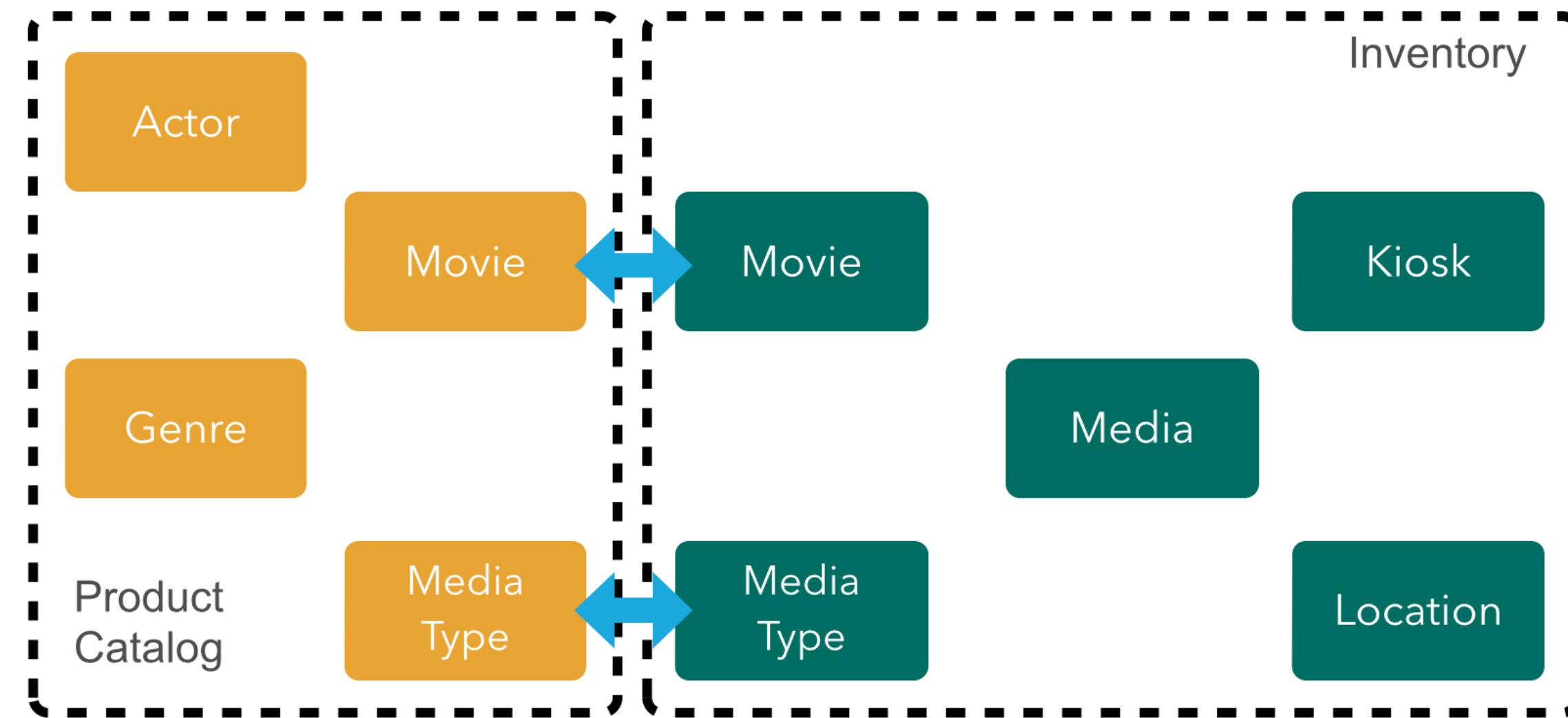
Loosely Coupled

If every service has to be updated in concert, it's not loosely coupled!

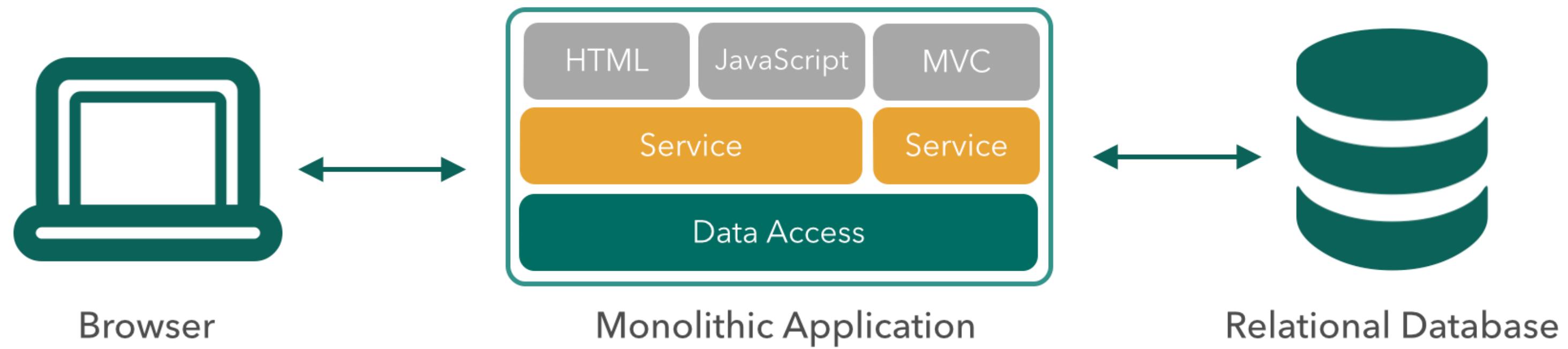
Bounded Contexts

If you have to know about surrounding services you
don't have a bounded context.

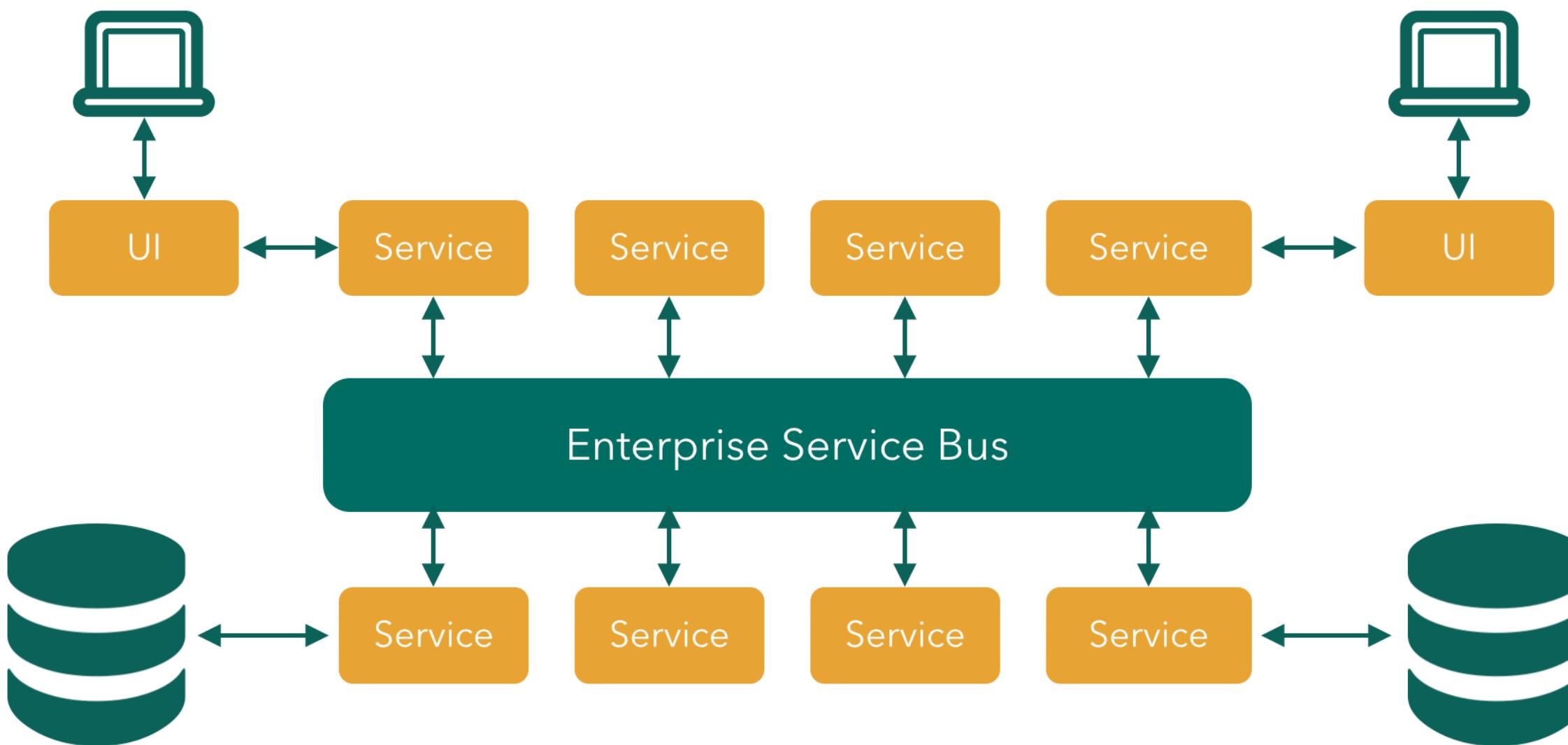
Bounded Contexts



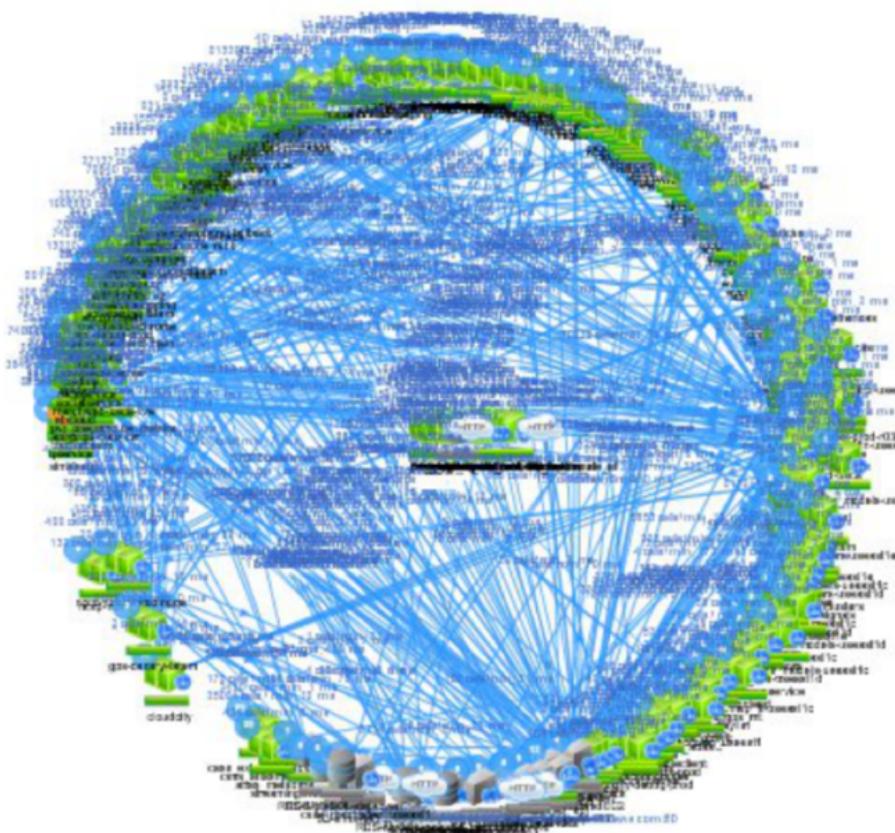
Not Monoliths...



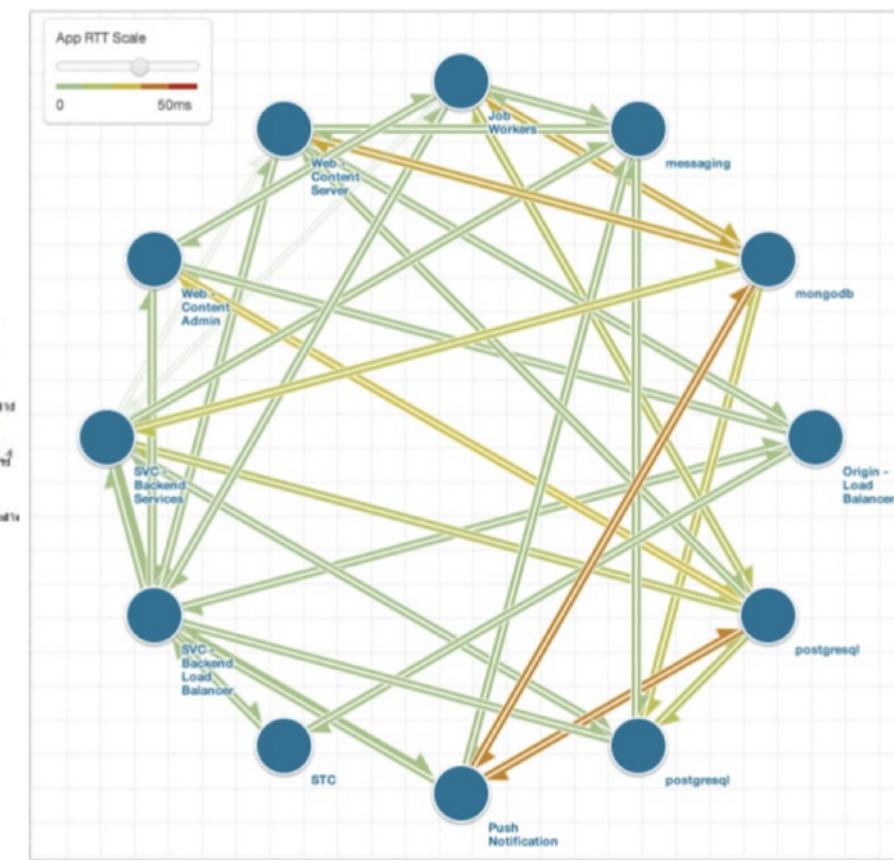
Not Traditional (ESB-centric) SOA...



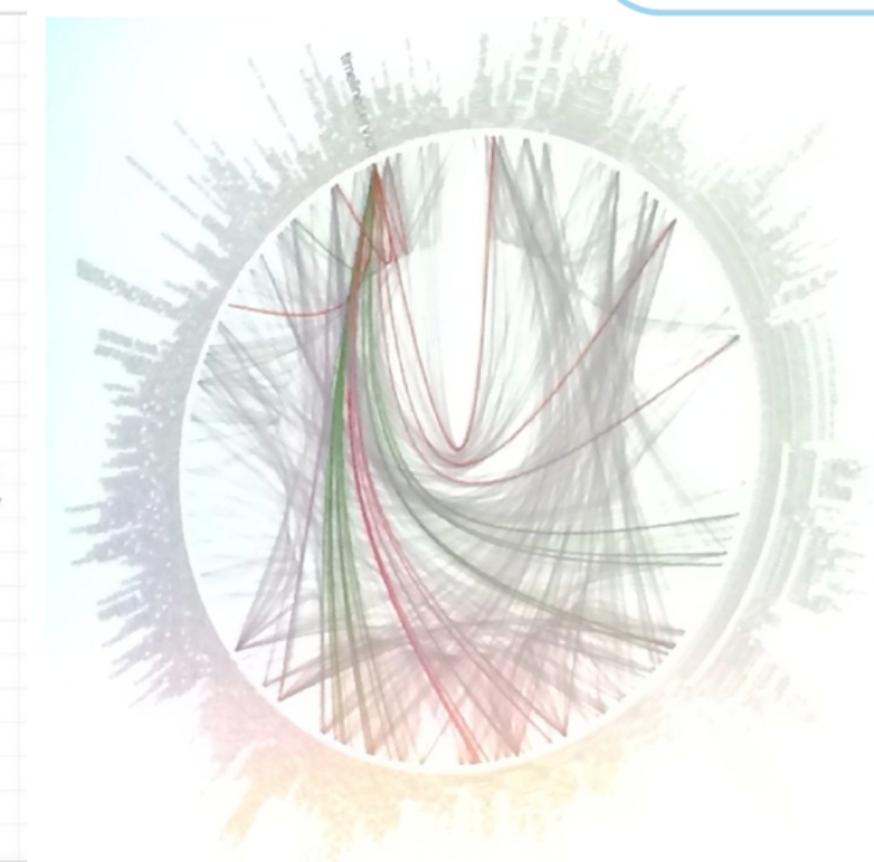
But Microservices!



Netflix



Gilt Groupe (12 of 450)



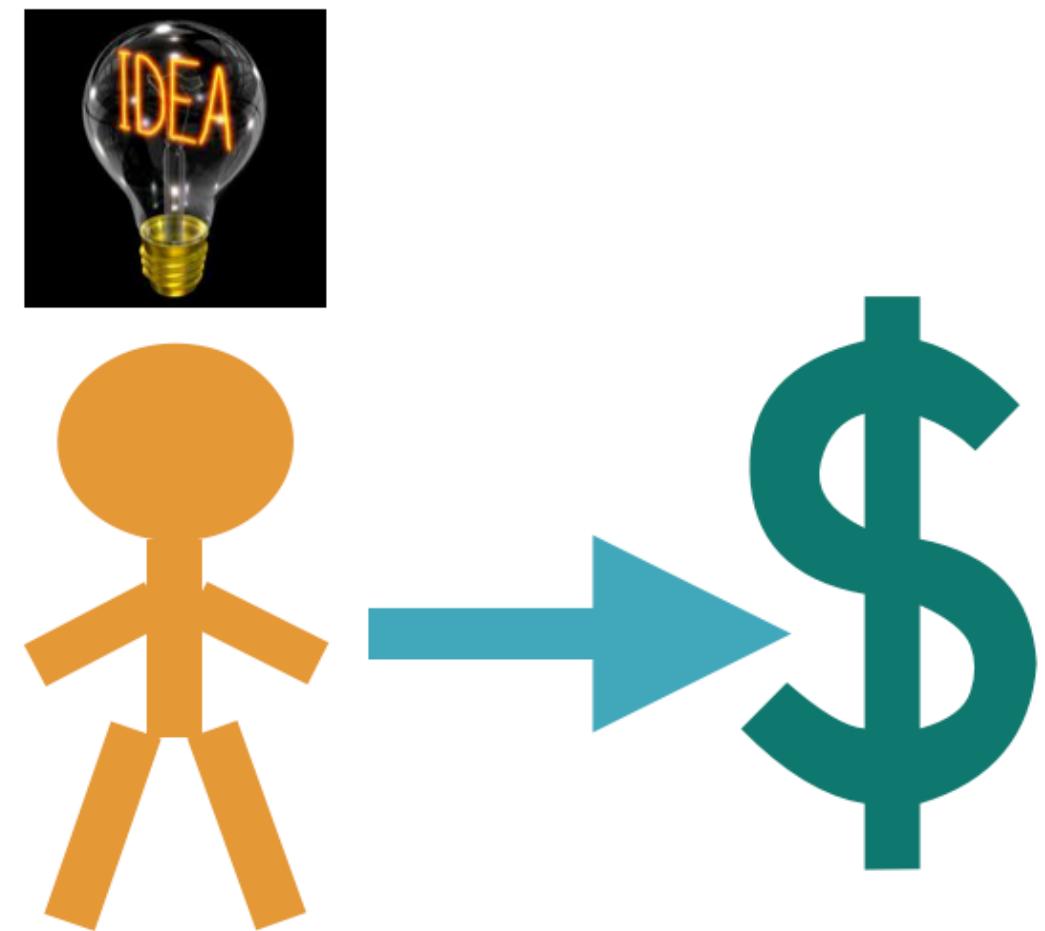
Twitter



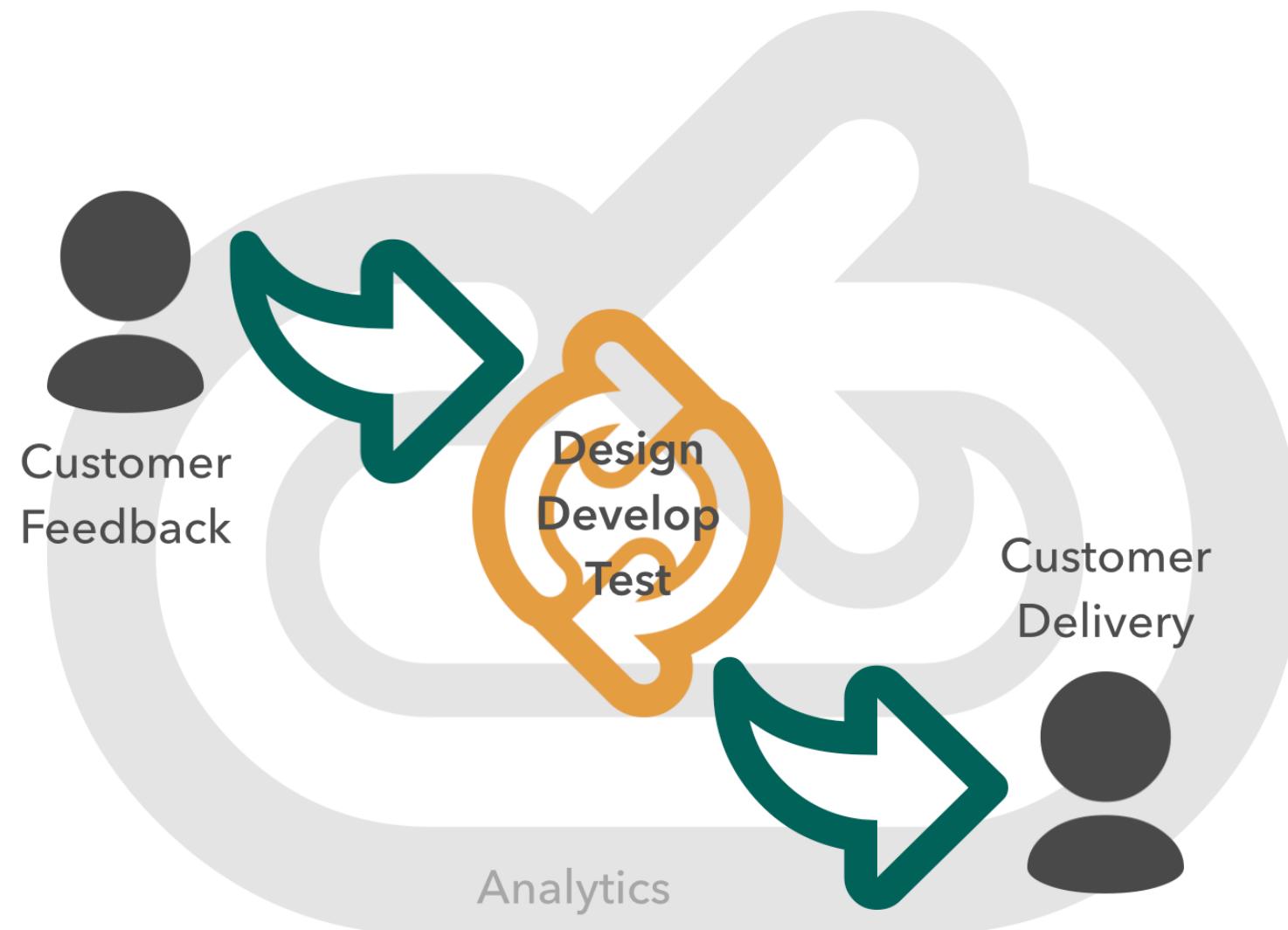
Enabling Continuous Delivery



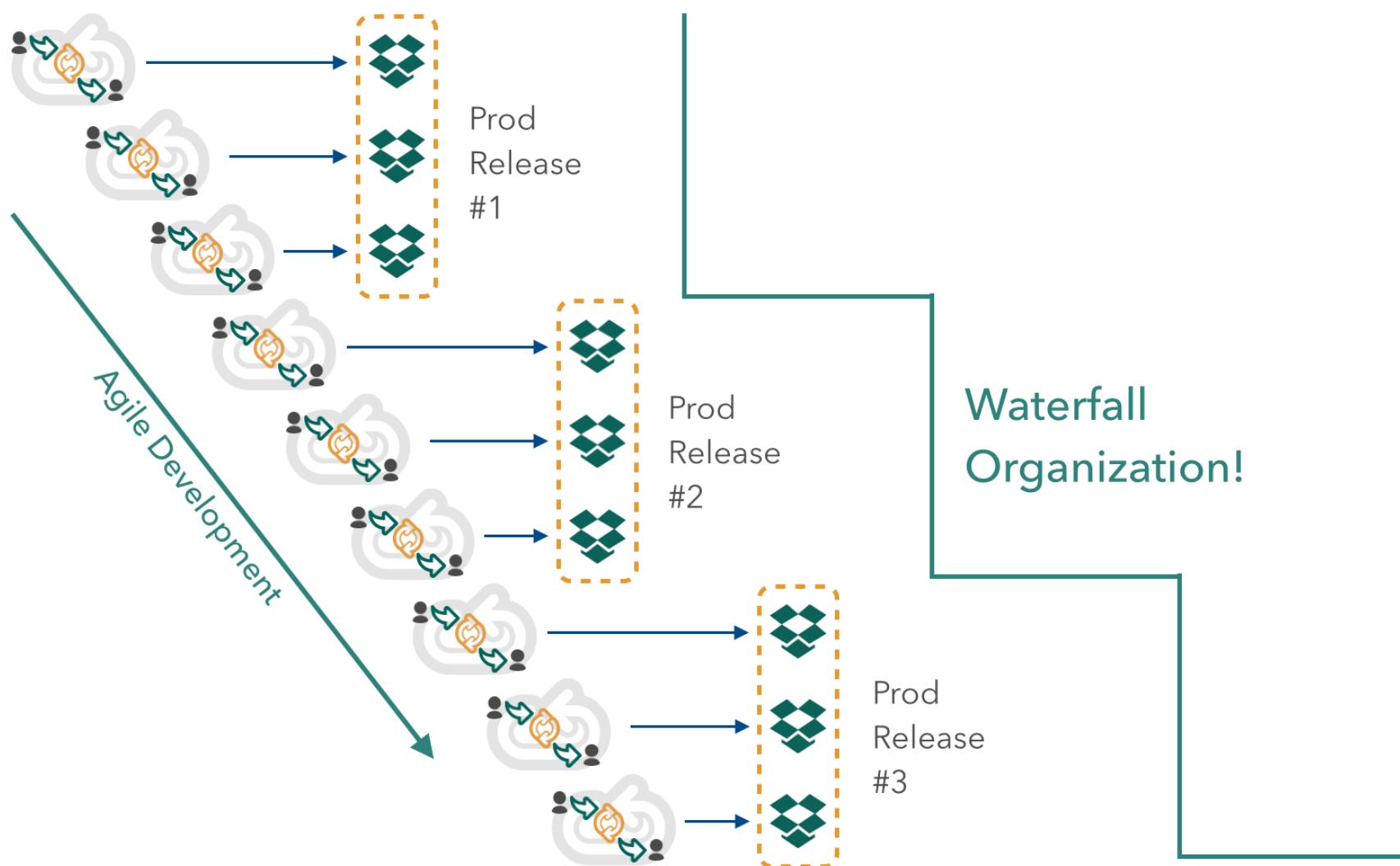
Enabling Continuous Delivery



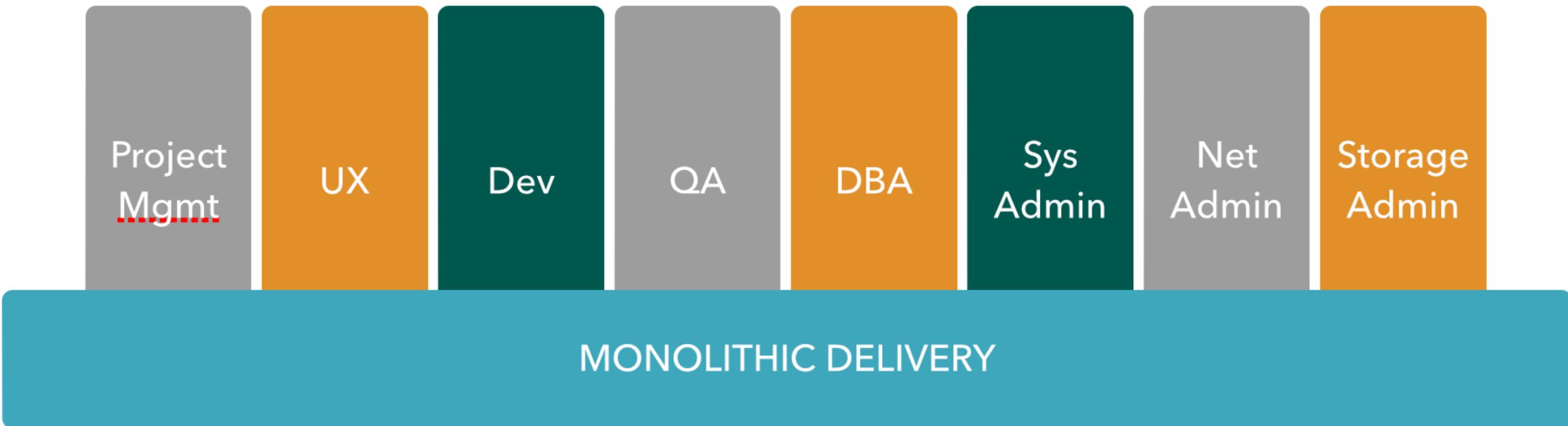
Agile: Iterative Feedback Loops



Waterscrumfall



Monolithic Delivery

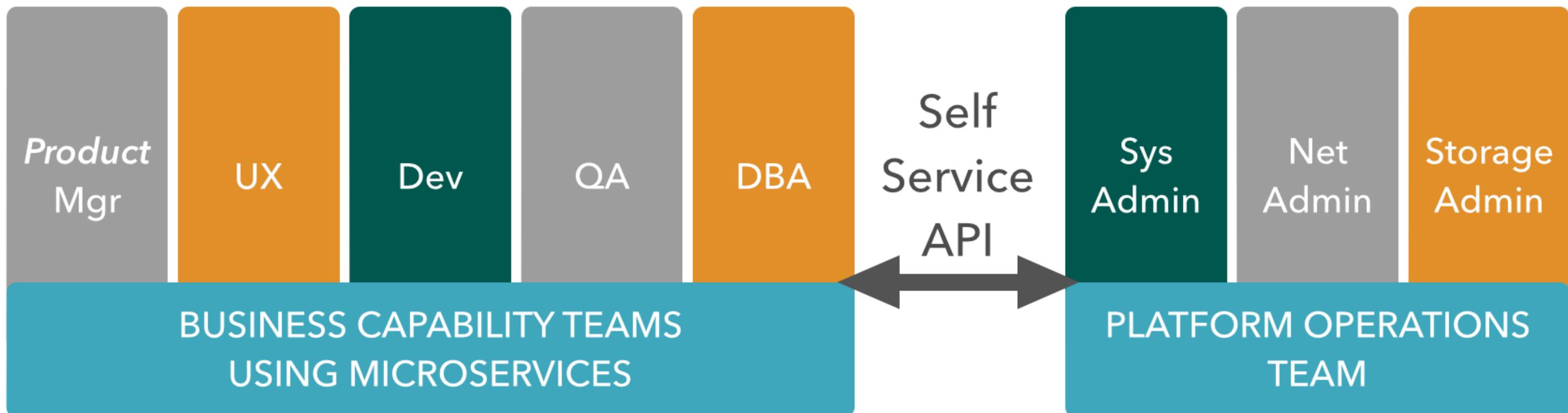


Conway's Law

Any organization that designs a system (defined broadly) will produce a design whose structure is a copy of the organization's communication structure.

— Melvyn Conway, 1967

The Inverse Conway Manuever



Continuous Delivery



Supporting Rapid Change

Microservices is the first architectural style developed:



POST Continuous Delivery
&
POST DevOps

Architecture is abstract
until it is operationalized.



Neal Ford, 2014

Architectures that aren't
operationalized exist only
on whiteboards.



Matt Stine, 2014

BREAK

TIME!