

Pivotal.

# DevOps & Data

## Breaking down the silos

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@testobsessed

“ You’re  
working  
with  
them?  
Good  
luck. ”



Developers

*Design*

Security

Operators

QA/Test

Business



BAD NEWS

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Data is still a silo.

# Actually, probably multiple silos...



DBAs

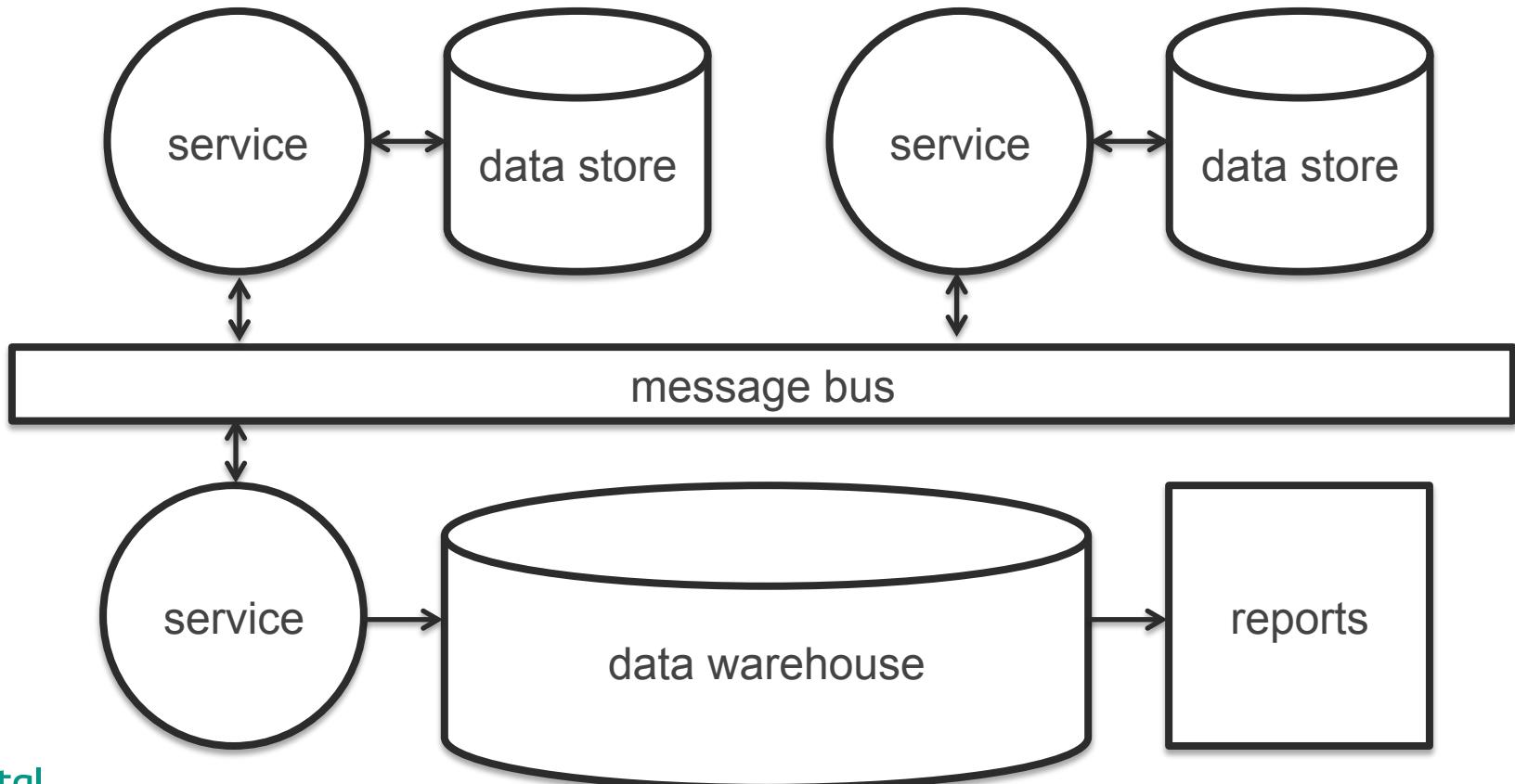


Data  
Engineers

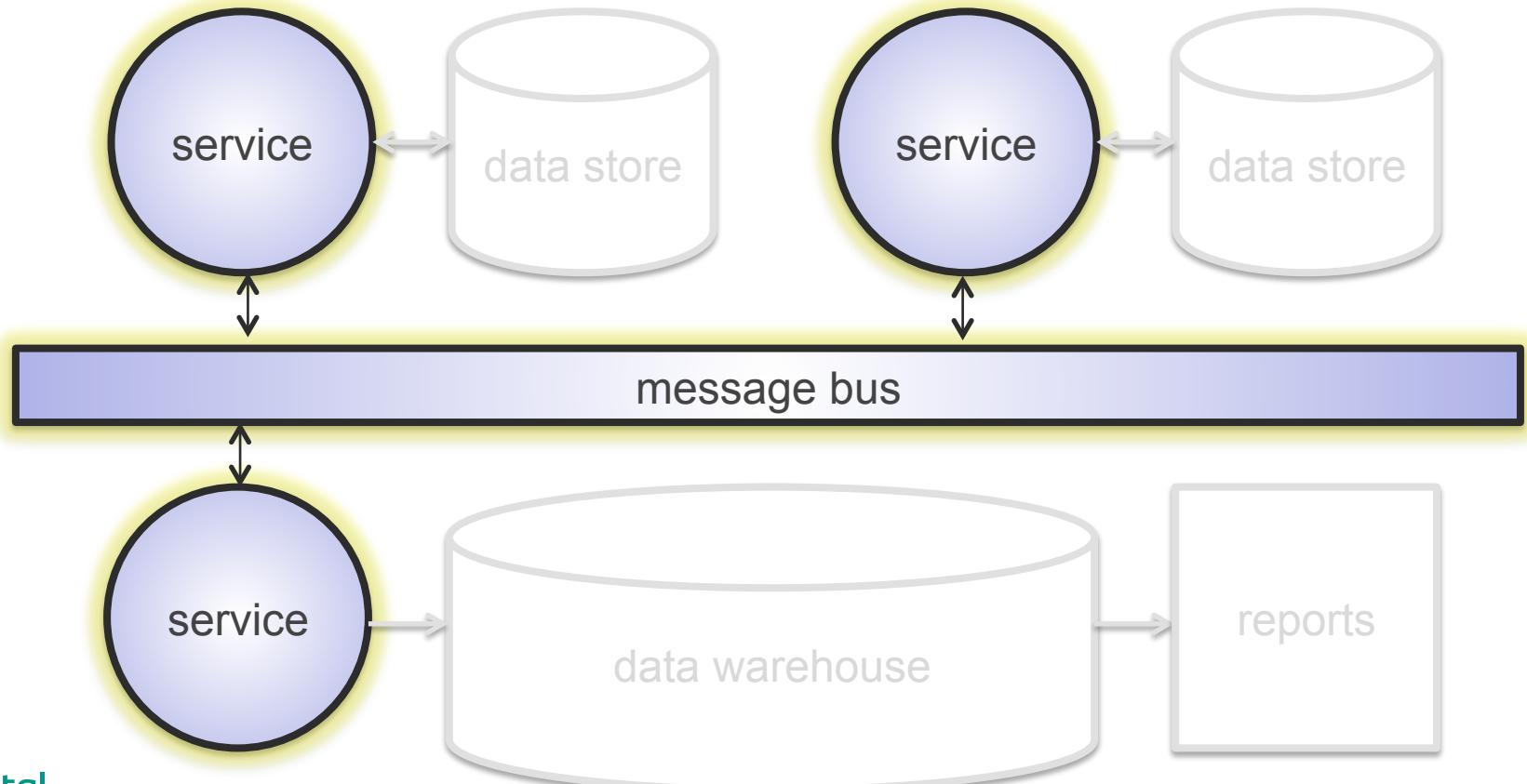


Data  
Scientists

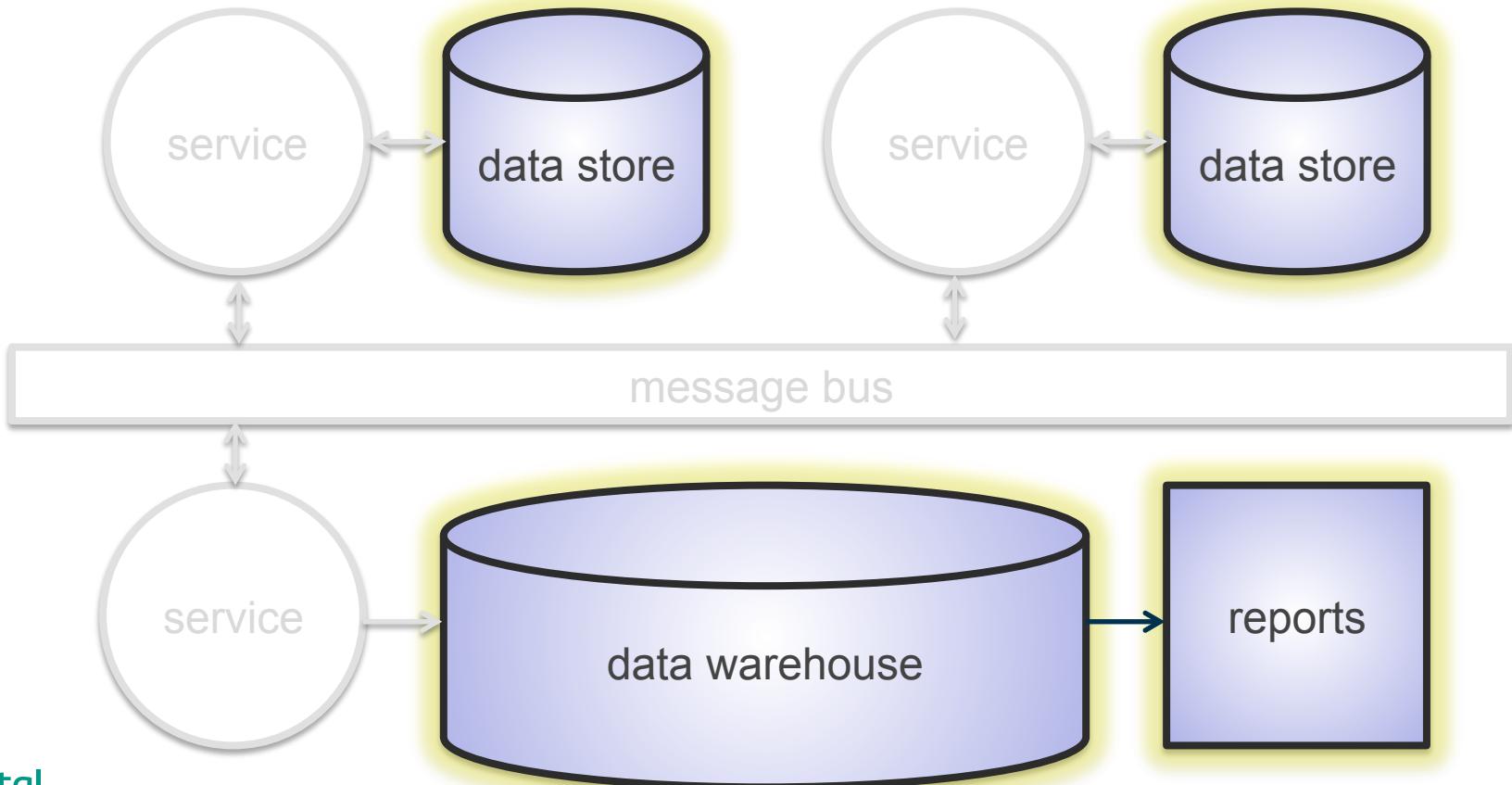
# A System



# Software Professionals See...

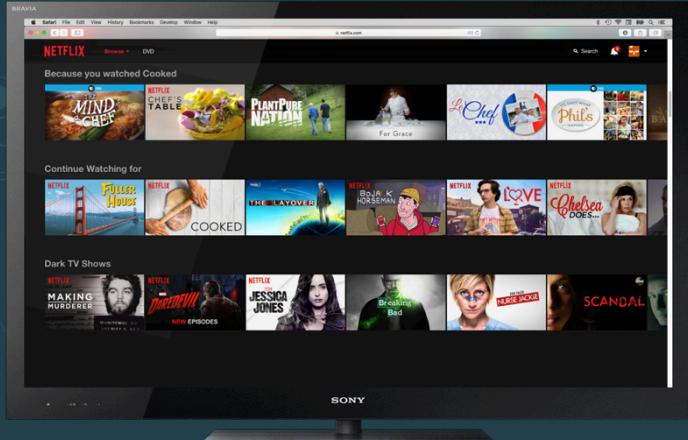
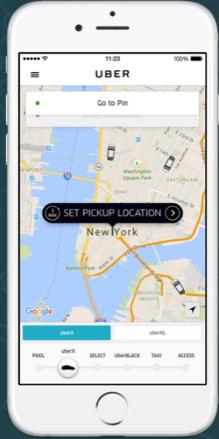


# Data Professionals See...



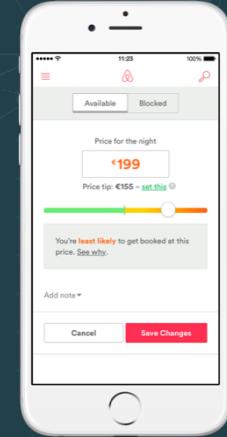
# But data is driving business more than ever...

Reliable  
ETAs



## Recommendations

Price  
Optimizations

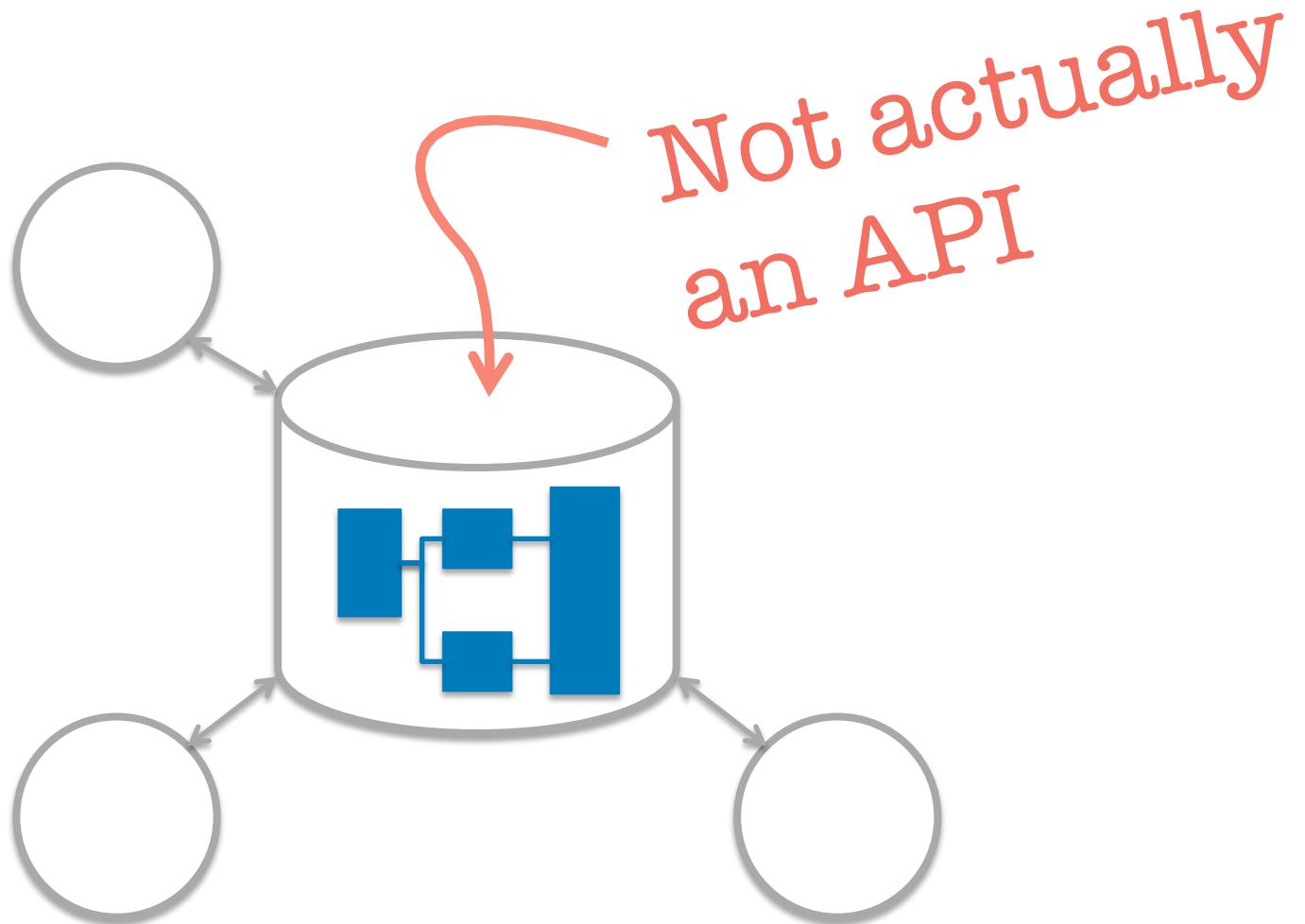


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TO BE FAIR...

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DevOps-ing Data  
is HARD



The background of the slide is a dark blue color. In the center, there is a faint, semi-transparent image of a classical building's facade, specifically focusing on its columns. The columns are fluted and light-colored. Above the columns, a bright, circular sunburst or lens flare effect is visible, radiating outwards.

Data Governance

# Governance

A blurred background image of Formula 1 race cars and pit crew members in motion, creating a sense of speed and performance.

# Tuning



Pets

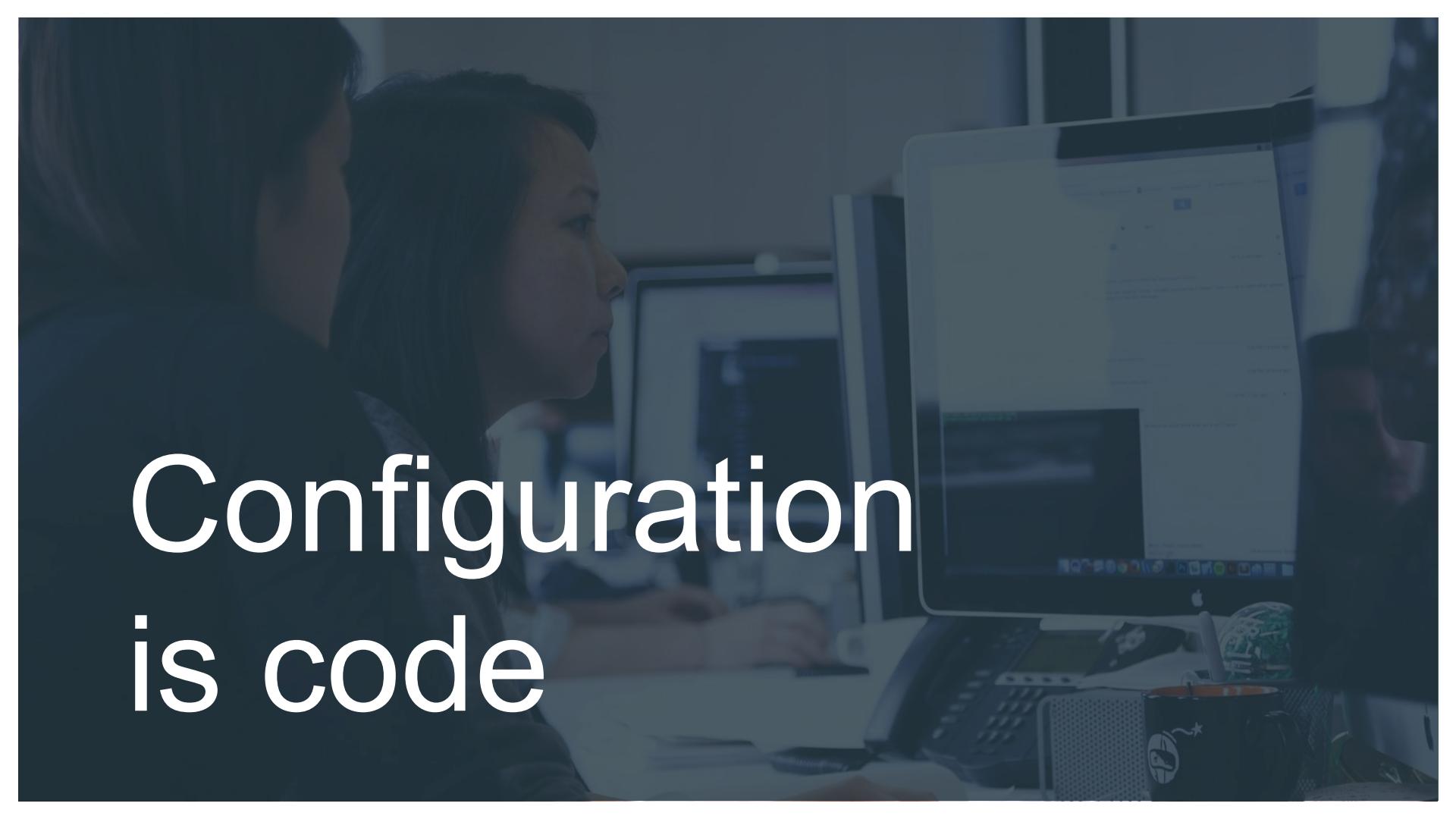
# Data-Specific Alerting



DevOps, Agile, and  
Cloud Approaches offer

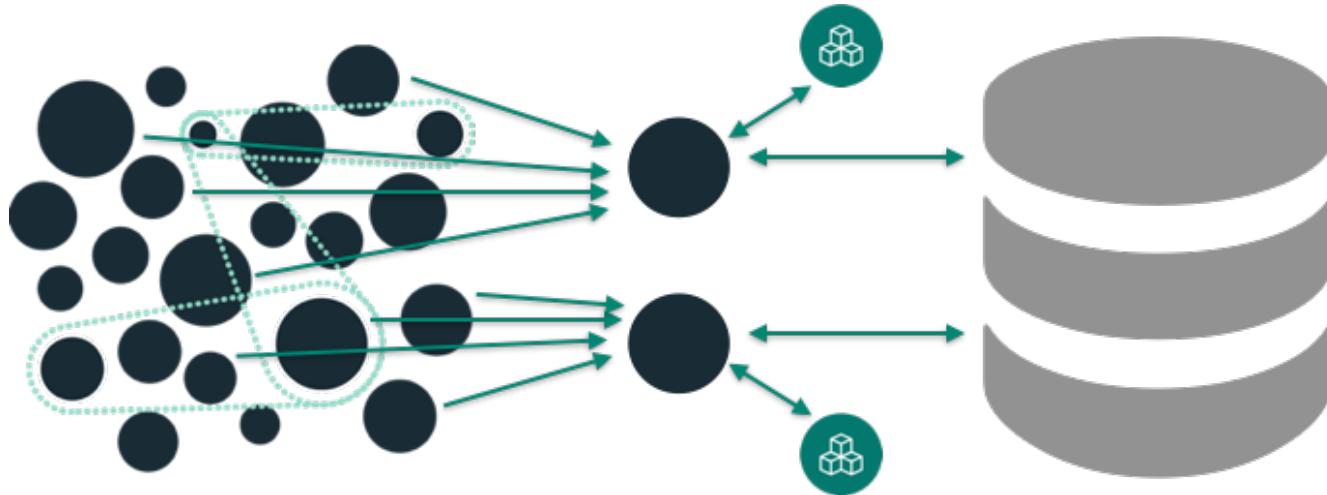
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Solutions

A woman with dark hair is seen from the side, looking down at a computer monitor. She is wearing a light-colored top. In front of her is a desk with a keyboard and a mouse. There are two other monitors on the desk, one showing a dark interface and another showing a white document. A green mug sits on the desk to the right of the monitors. The background is slightly blurred.

# Configuration is code

# Cloud Native Architecture



Microservices. Polyglot persistence.  
Event-based architectures.  
APIs instead of shared schemas.

# Data-Specific Monitoring and Alerting



# Automate All the Things (Almost\*)

## The basics...

Deploy

Update

Stop

Start

Restart

## and also...

Routine user creation/access

Create/change schemas

Deploy user db code

Backups

Routine maintenance

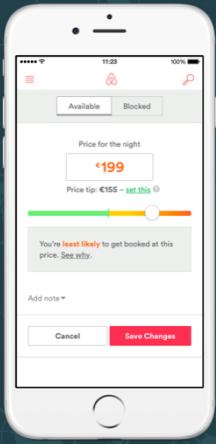
\* Take care automating things requiring human judgment.

If You Want to Break  
Down Silos

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Draw Lines  
Differently

# Bring Data in Scope



**MVP:** User can order a widget

...and users see personalized  
widget recommendations...

...and we report cohort  
conversion rates...

A photograph of a modern office common area. In the center, a man with glasses and a blue shirt plays a ukulele. He is surrounded by several other people: a woman in a striped shirt to his left, a man in a white polo shirt, a man in a light blue shirt, a woman in a dark cardigan, a woman in a striped shirt, and a man in a grey shirt on the right. In the background, there's a red couch, a blue couch, a whiteboard, and a large window overlooking a city skyline. A television screen on the wall displays a presentation slide.

# With Not For

*Data Engineers*

*Security*

*Design*

Developers

Operators



*QA/Test*

DBAs

*Business*

*Data Scientists*



# Pivotal®

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## Transforming How The World Builds Software