

# The (Big) Picture of Debt

Tali Gutman  
Staff Engineer @ Datadog





# Technical Debt

It's the thing we all have opinions on...

# WHERE TO FIND TECH DEBT

- Haunted Graveyards
- Systems' Cost of Success
- Regrettable API Choices
- Anything 3m+







01

In the beginning...

## THE TRAGEDY OF THE COMMONS

WHEN SHORT-TERM SELF-INTEREST LEADS TO TRAGEDY FOR ALL

WATER BELONGS TO  
ANYONE. I TAKE AS  
MUCH AS I WANT

SEEMS THERE'S LESS  
AND LESS THESE DAYS



sketchplanations

# 01 Why Share?



01  
→ Multi Cloud



02

Why Not Services?





02  
→ Too Much Work



# con·text

/'kæntekst/

*noun*


the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood and assessed.



03  
Imagine...

## *REQUIREMENTS:*

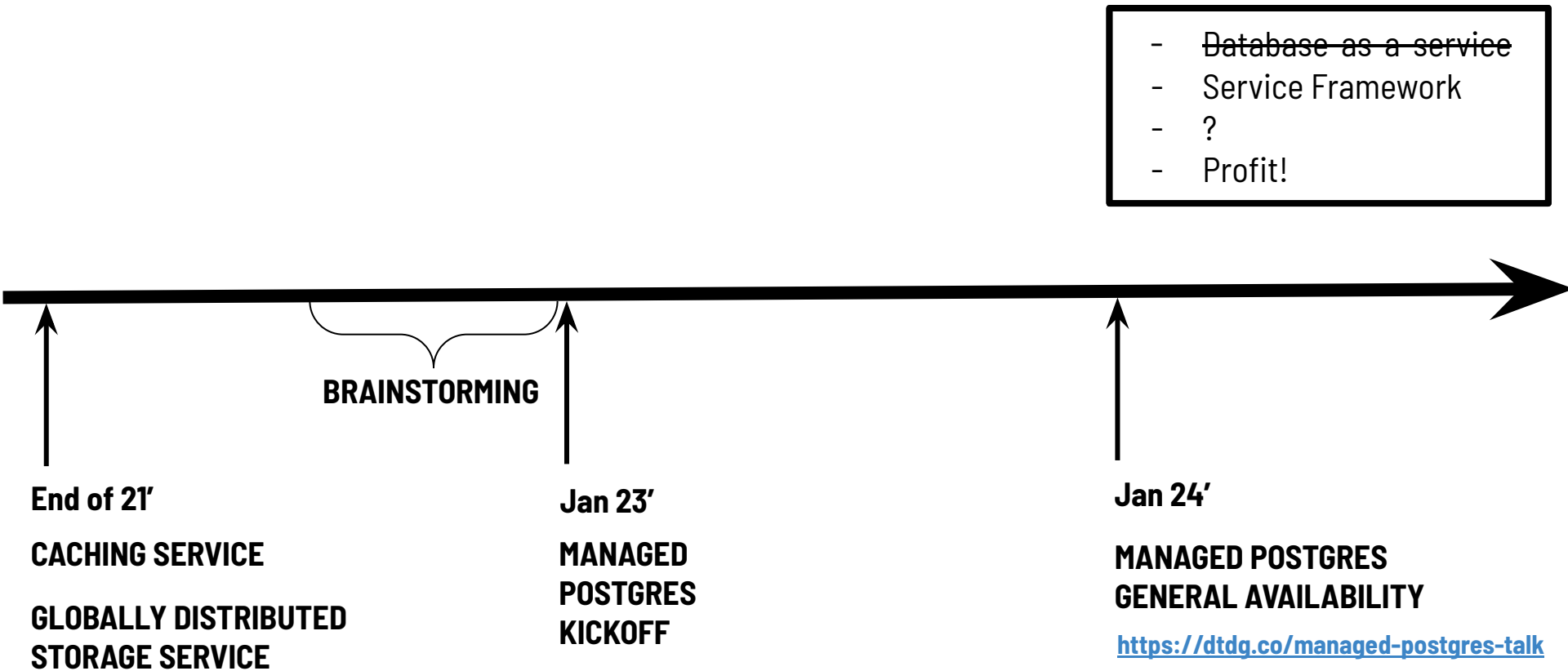
- Database-as-a-service
- Service Framework
- ?
- Profit!



```
for idea in {service_framework, database_as_a_service}:  
● identify which team would own the {idea}  
● sell {idea} to them  
● help them develop the vision  
● let them convince...
```



04  
An account of the  
passage of time



**API FRAMEWORK  
KICKOFF  
Jan 22'**

**API FRAMEWORK  
IMPACT  
Mid 23'**

- ~~Database as a service~~
- Service Framework
- ?
- Profit!

BRAINSTORMING

End of 21'

CACHING SERVICE

GLOBALLY DISTRIBUTED  
STORAGE SERVICE

Jan 23'

MANAGED  
POSTGRES  
KICKOFF

Jan 24'

MANAGED POSTGRES  
GENERAL AVAILABILITY

<https://dtdg.co/managed-postgres-talk>

DATADOG POPULATION: ~2k

DATADOG POPULATION: ~5k

API FRAMEWORK  
KICKOFF  
Jan 22'

API FRAMEWORK  
IMPACT  
Mid 23'

- ~~Database as a service~~
- Service Framework
- ?
- Profit!

BRAINSTORMING

End of 21'

Jan 23'

Jan 24'

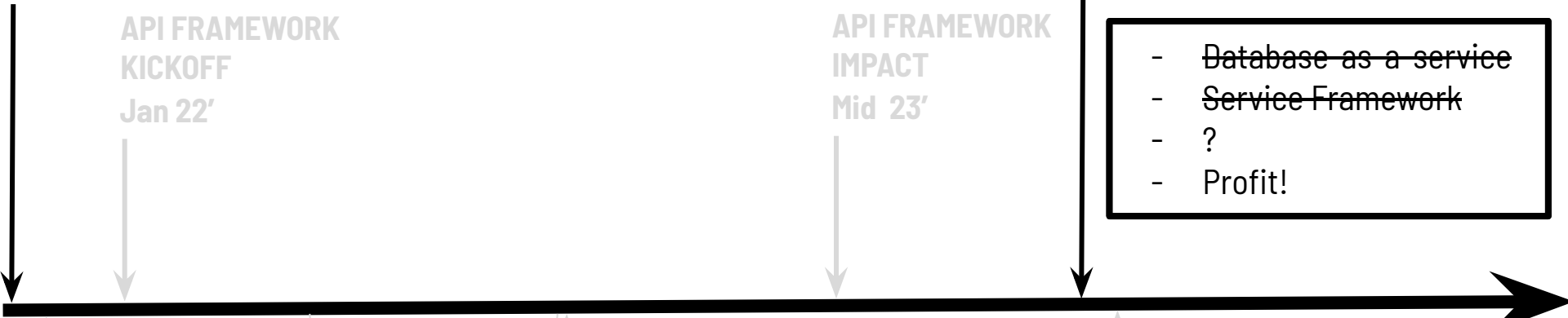
CACHING SERVICE

MANAGED  
POSTGRES  
KICKOFF

MANAGED POSTGRES  
GENERAL AVAILABILITY

GLOBALLY DISTRIBUTED  
STORAGE SERVICE

<https://dtdg.co/managed-postgres-talk>







05

What's my job, again?

DATADOG POPULATION: ~2k

API FRAMEWORK  
KICKOFF  
Jan 22'

*FALSE START*

Jan 23'

*PARTNER  
IN CRIME*

Dec 22'

DATADOG POPULATION: ~5k

API FRAMEWORK  
IMPACT  
Mid 23'



VG

Jan 23'

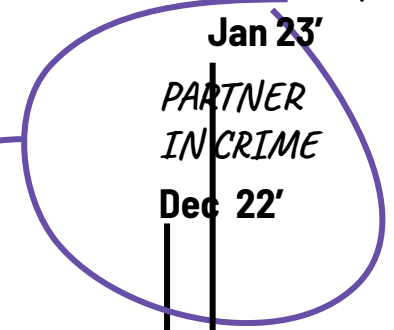
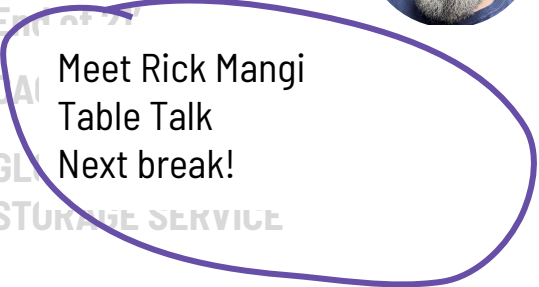
MANAGED  
POSTGRES  
KICKOFF

Jan 24'

MANAGED POSTGRES  
GENERAL AVAILABILITY

<https://dtdg.co/managed-postgres-talk>

Meet Rick Mangi  
Table Talk  
Next break!



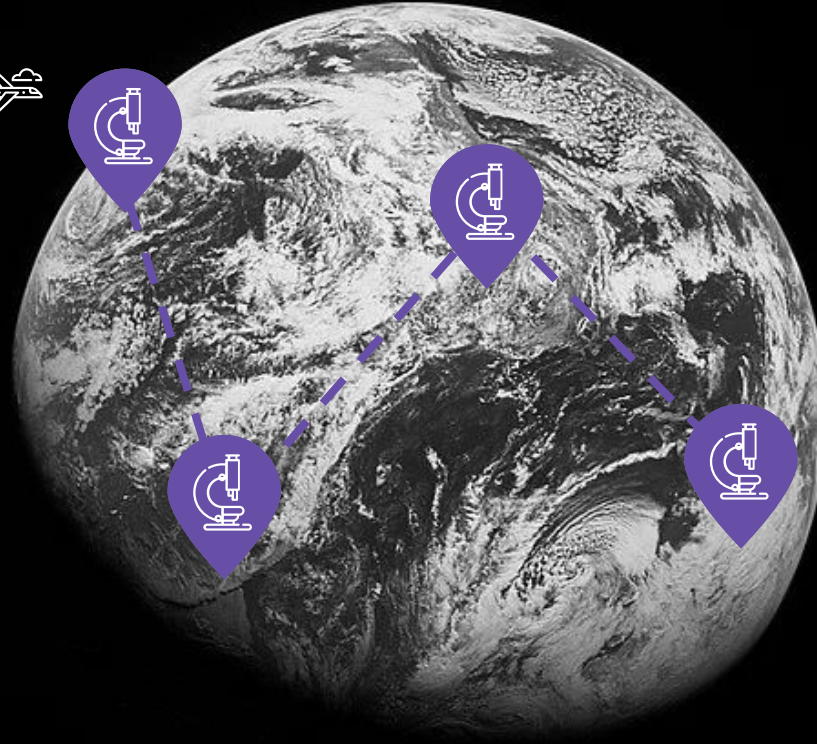
# Plan, Take 1

1. Build a service
2. Migrate everyone to Service
3. ...
4. Profit!



**~~Every team will do a bunch of work that will solve a small fraction of their problems, and trust that we'll figure something out in the meantime.~~**

# UNDERSTANDING WHERE WE ARE



DATADOG POPULATION: ~2k

API FRAMEWORK  
KICKOFF  
Jan 22'

*PARTNER  
IN CRIME*  
Dec 22'

API FRAMEWORK  
IMPACT  
Mid 23'

DATADOG POPULATION: ~5k

**PLAN IS  
APPROVED  
Dec 23'**

BRAINSTORMING

End of 21'

CACHING SERVICE

GLOBALLY DISTRIBUTED  
STORAGE SERVICE

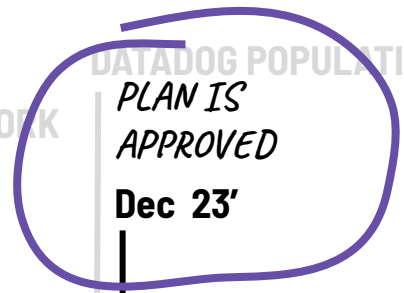
Jan 23'

MANAGED  
POSTGRES  
KICKOFF

Jan 24'

MANAGED POSTGRES  
GENERAL AVAILABILITY

<https://dtdg.co/managed-postgres-talk>



# Plan, Take 2

1. Ownership Boundaries, unenforced
2. Enforcement → Self Service
3. Streamline DB Migration



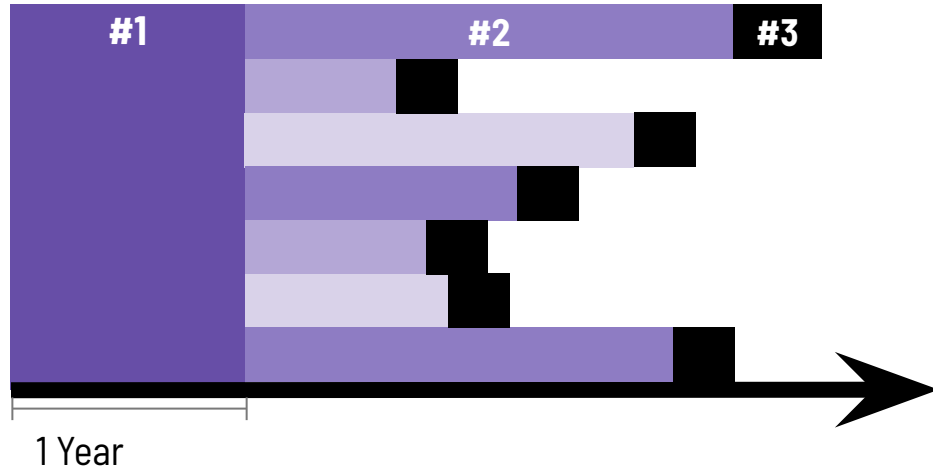
**~~ We'll do everything we possibly can to make this easy and safe. ~~**



# 06

## Going the Distance

# Some Hard Realizations







LET IT GO!



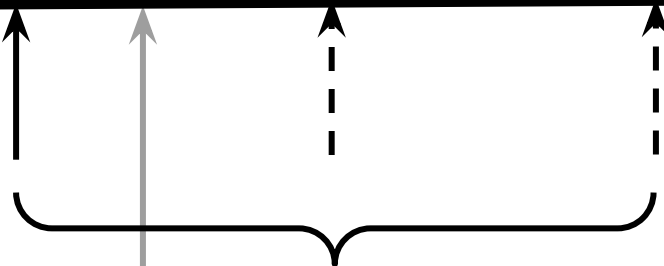
??

What's my job, again?

**API FRAMEWORK INTEGRATION  
WITH PG-AS-A-SERVICE IMPROVING**



**INCREASED ADOPTION OF PG-AS-A-SERVICE**



**TOOLS FOR MOVING DOMAINS OUT OF  
SHARED DB ARE MATURING**

*WE ARE  
HERE*

*SOMETIME IN THE  
BRIGHT AND NOT  
SO FAR FUTURE*



07

## Looking back...

- *Technical debt has context.*
- *Curiosity is awesome.*
- *Seeing is believing.*
- *Time works magic.*
- *Aligned incentives go a long way.*
- *Letting go is hard.*
- *Good luck is good.*



# THANKS

Tali Gutman, StaffPlus NYC 2024  
gutmant@gmail.com

CREDITS: This presentation template was created by Slidesgo, including icons by Flaticon, and infographics & images by Freepik