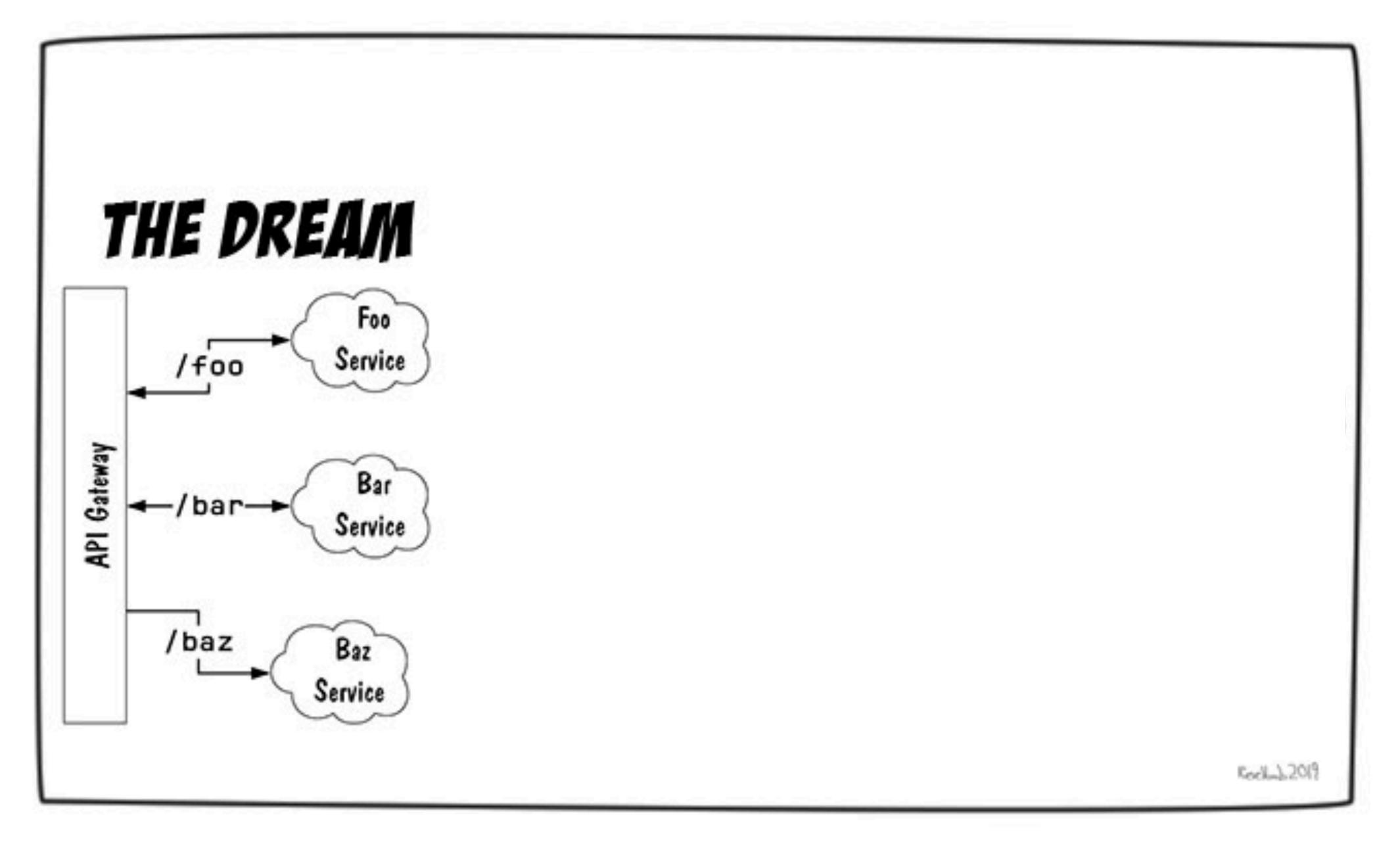


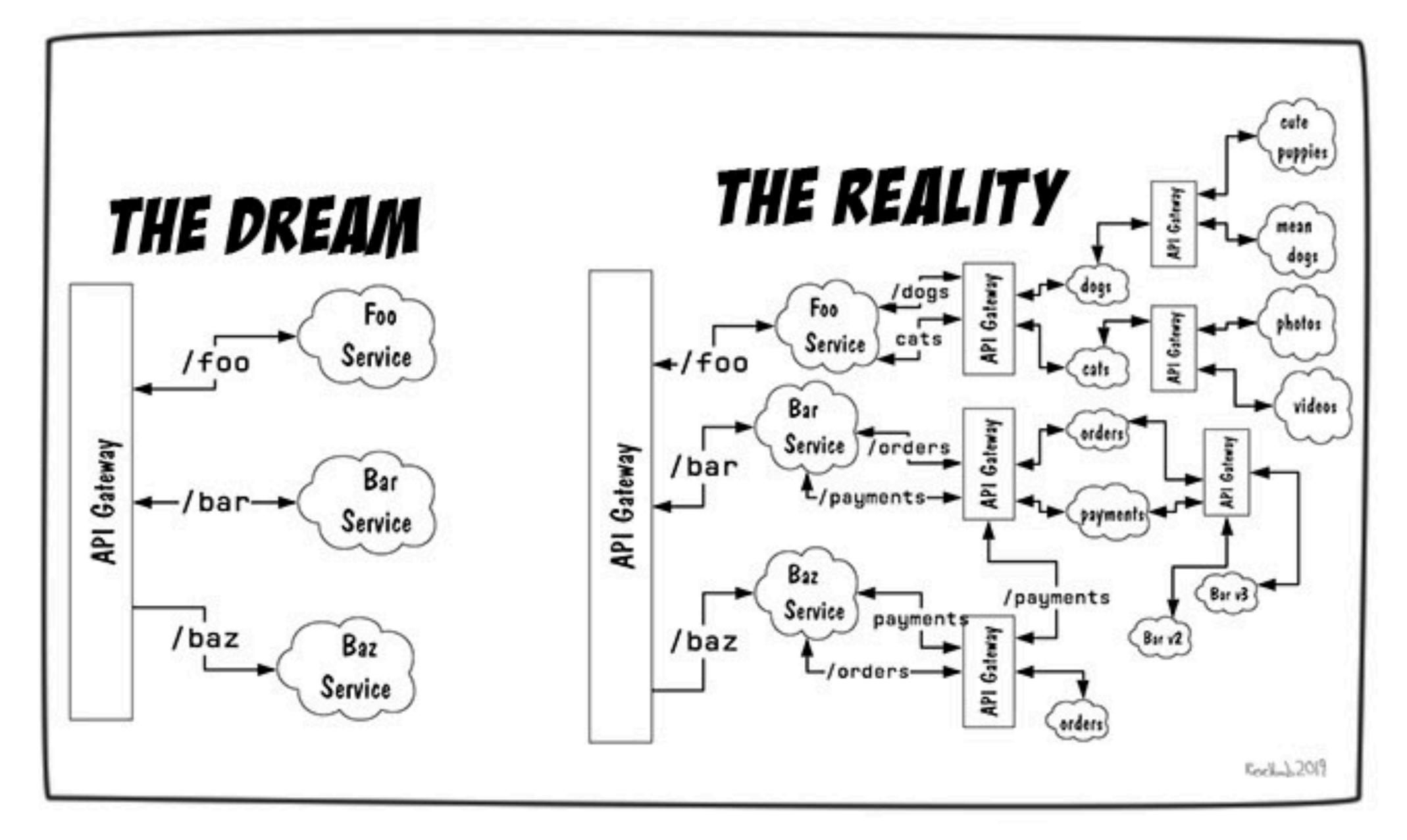
Playing the Observability Game

Chris Engelbert Senior Developer Advocate @ Instana @noctarius2k





### INSTANA an IBM Company



### INSTANA an IBM Company

Chris Engelbert Senior Developer Advocate @Instana

10+ Years of Software Engineering Java, Go, Python, C/C++, ...









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Logfiles SLA

Context

Alerts

Performance Metrics

**Cloud Metrics** 

CODE DEPLOY PLAN OPERAN Dev Ops BUILD OBSERVE

Distributed Traces

SLO

Infrastructure Changes

Metadata

Health Metrics

Dependencies

**End-User Monitoring** 

**Profile Information** 





## What is our job?

```
int getRandomNumber()
{
    return 4; // chosen by fair dice roll.
    // guaranteed to be random.
}
```



## What is our job?

```
int getRandomNumber()
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}
```

## High-Performing Engineering





Picture: https://itsm.tools/understanding-how-to-demonstrate-the-business-value-of-it/

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• Deployment Frequency







- Deployment Frequency
- Lead Time to Change







- Deployment Frequency
- Lead Time to Change
- Time to Restore







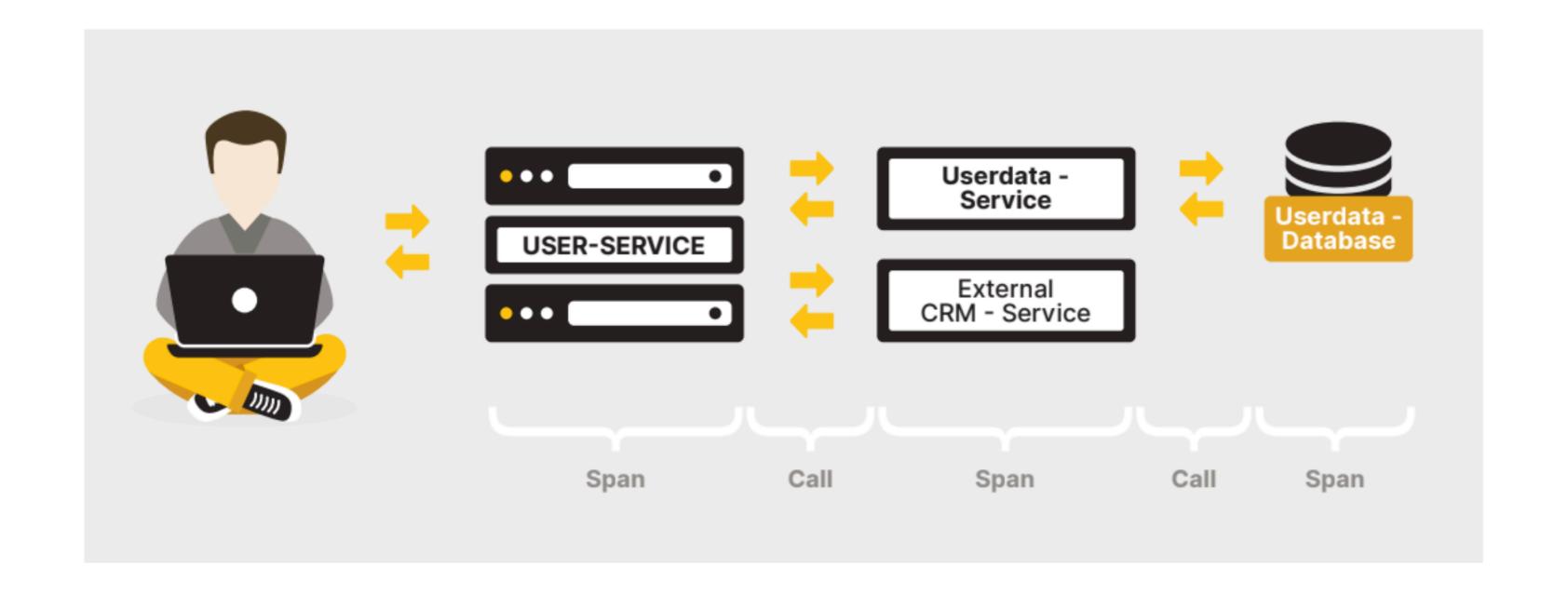
- Deployment Frequency
- Lead Time to Change
- Time to Restore
- Change Failure Rate





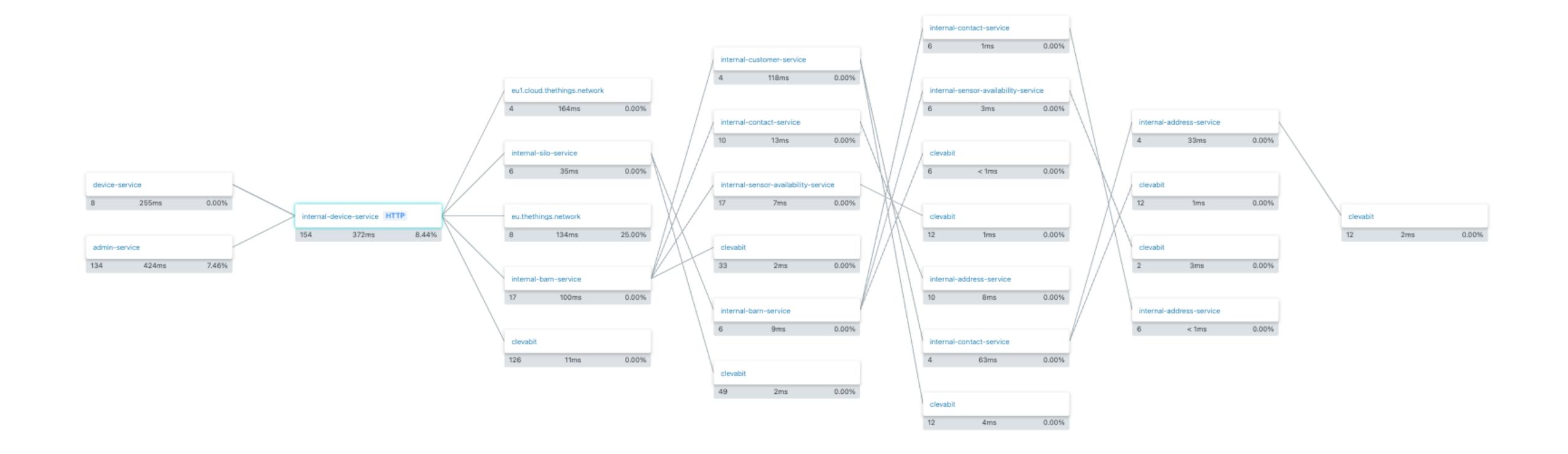


#### The Dream



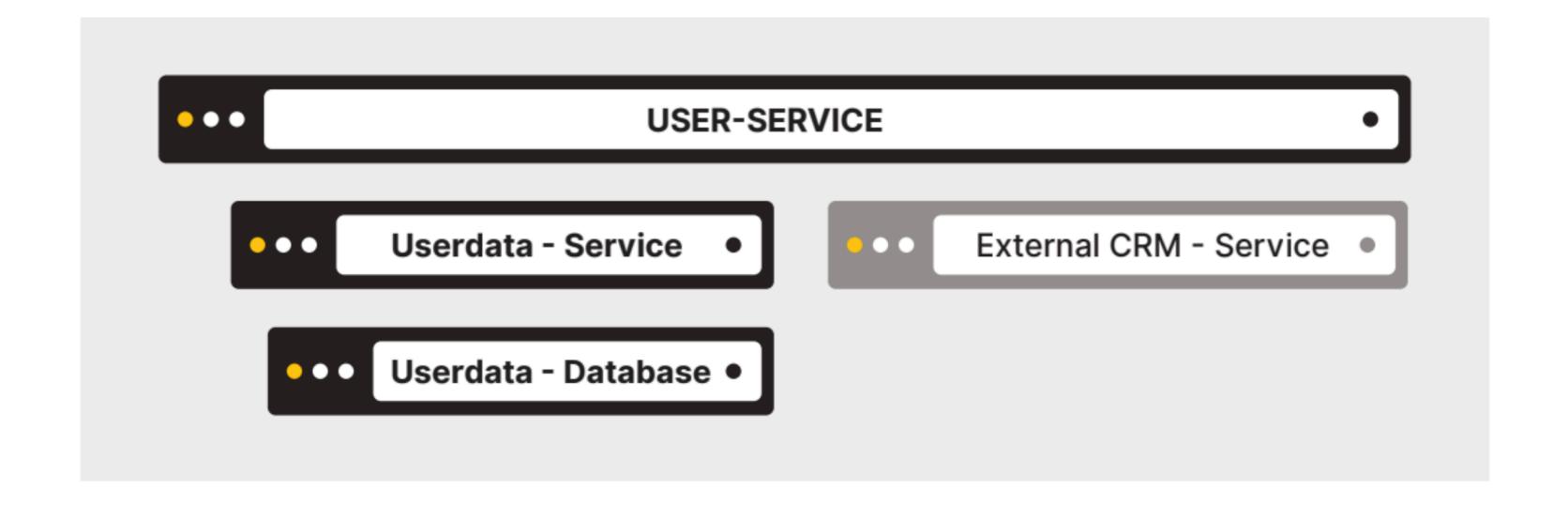


#### The Reality



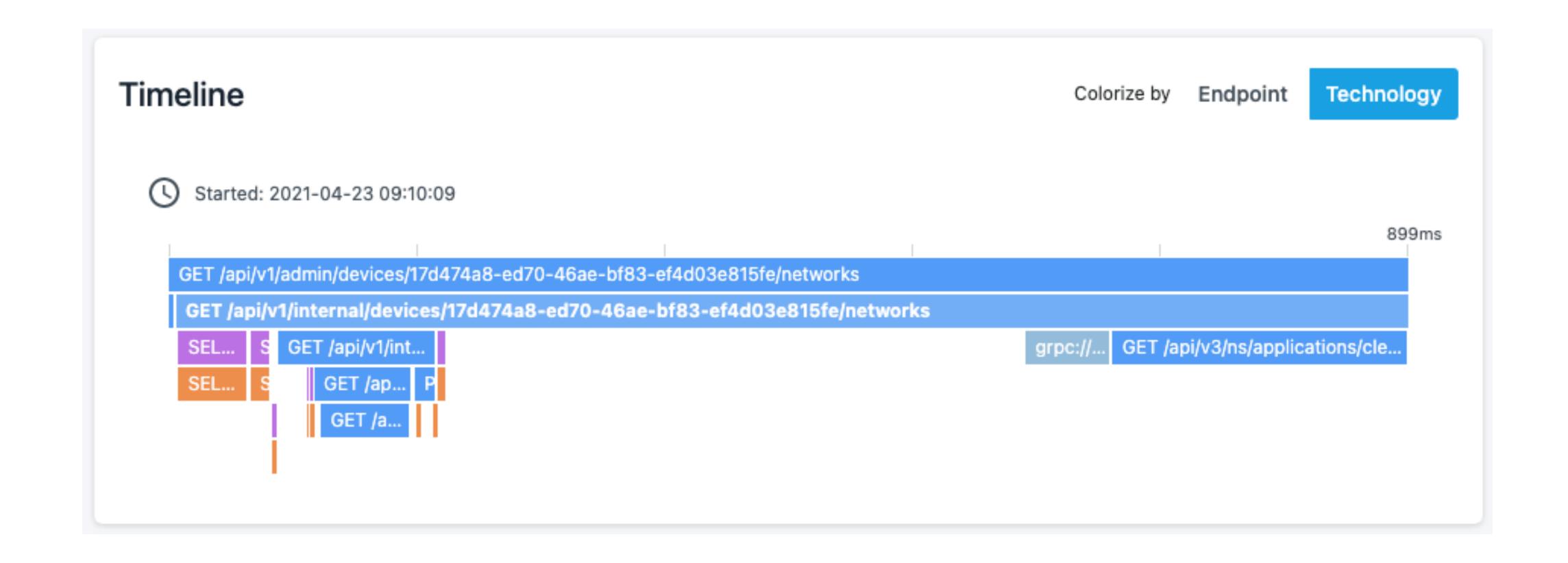


#### The Dream



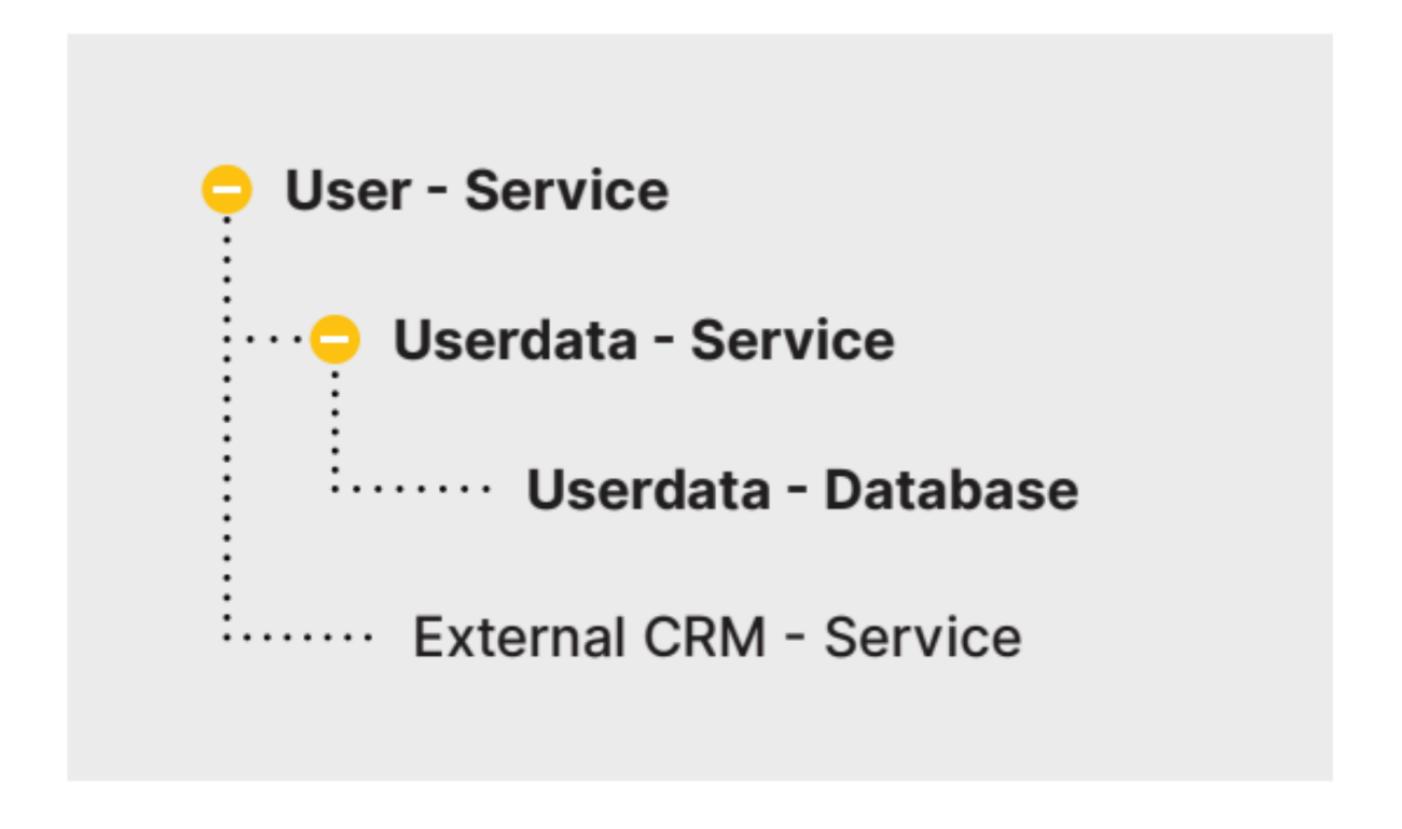


#### The Reality





#### The Dream



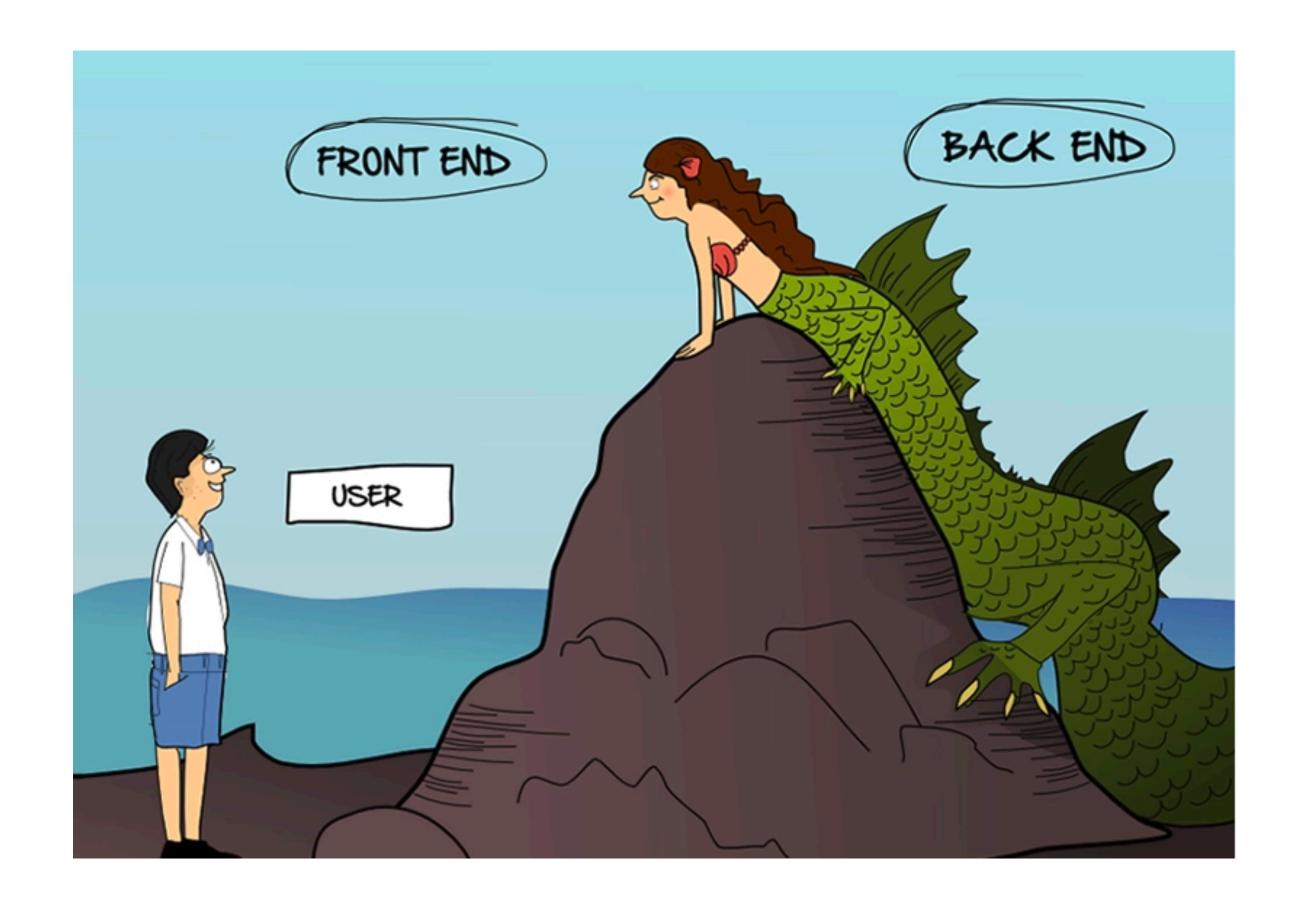


#### The Reality

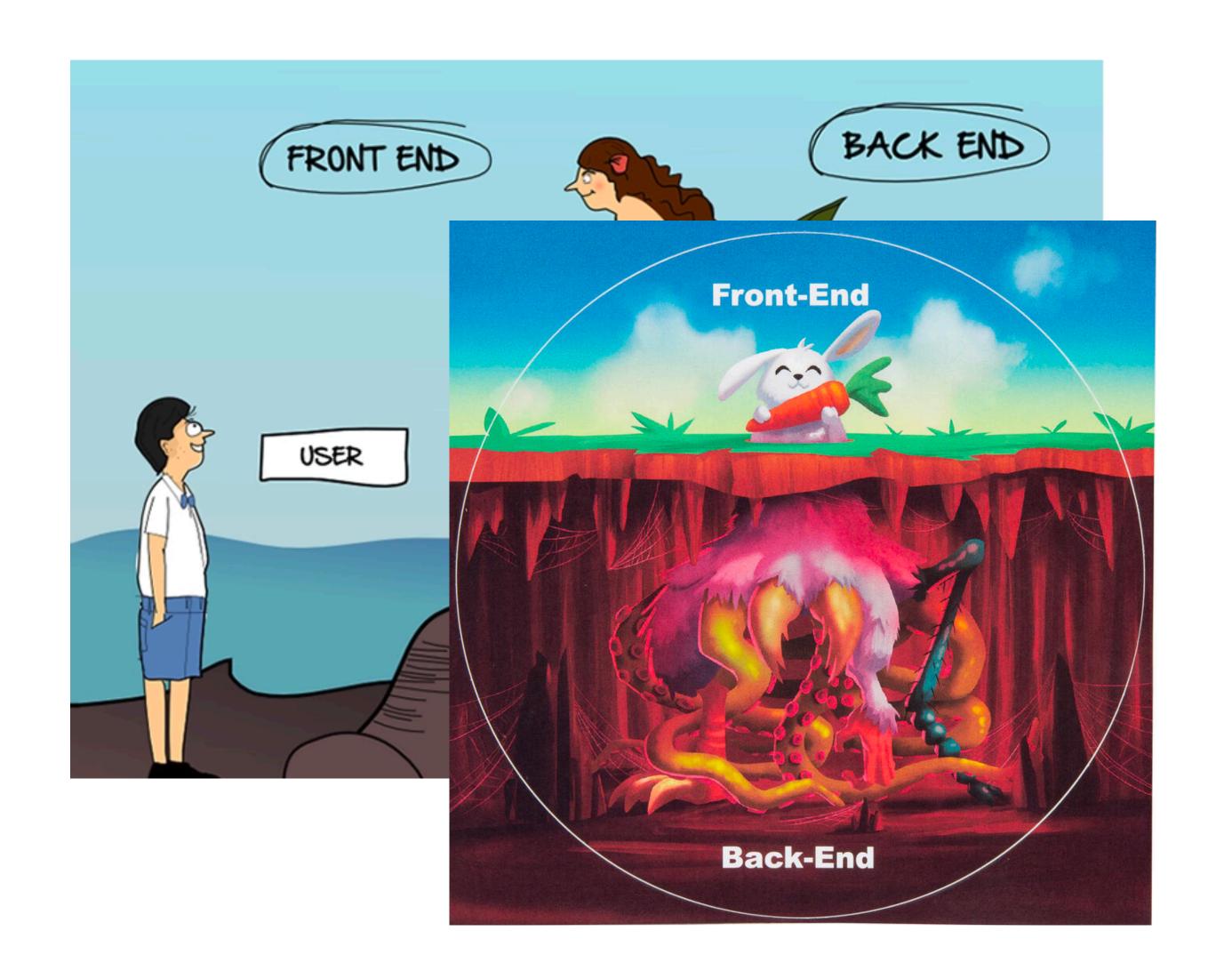
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To  SELECT_table_device_id, _tablename, _tabledata ->> 'board_serial', _tabledata ->> 'service_id', _tabled	data -> "activation" ->> "external_id", _table_data -> "lorawan" ->> "device_eui", _table_parent, _table_parent_type, coalesce(_table_data of $\Theta$ clevabit	
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SELECT s.sensor_id, dsu.port ->> 'serial_number', s.created, s.modified, (dsu.port ->> DATABASE	16ms	
	'vendor_id', dsu.port ->> 'device_id', s.data, st.mame FROM (SELECT (jsonb_array_elements[dsu.data -> 'ports']) AS port FROM (SELECT dsu.data of $\ominus$ clevabit	
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To ⊕ GET /api of ⊖ internal-barn-service		
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GET /api/v1/internal/contacts HTTP	72ms	
To ⊕ GET /api of ⊖ internal-contact-service		
GET /api/v1/internal/addresses HTTP	66ms	
To ⊗ GET (ap) of ⊖ internal-address-service		
POST /api/v1/internal/barns/sensors HTTP	16ms	
To ⊗ POST /api of ⊖ internal-sensor-availability-service		
SELECT id FROM child hierarchy/'b66c71ae-b2a2-4966-a41f-5e7ce287d64a', 'bar DATABASE  To  SELECT id FROM child hierarchy/'b68c71ae-b2a2-4986-a41f-5e7ce287d64a', 'barn'i WHERE type = 'device'	a' of ⊖ clevabit	
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To @ SELECT vt.value type id. vt.name. vt.description. vt.unit. dt.name FROM value type vt. data type dt WHERE	Evt.data type id = dt.data type id AND value type id = ANY(\$1) of ⊖ clevabit	
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grpc://eu.thethings.network//handler.ApplicationManager/GetDevice RPC	62ms	
To ⊚ (handler.ApplicationManaper/GetDevice of ⊖ eu.thethings.network		













Picture: https://www.geeksforgeeks.org/what-is-the-difference-between-front-end-and-back-end-web-development/



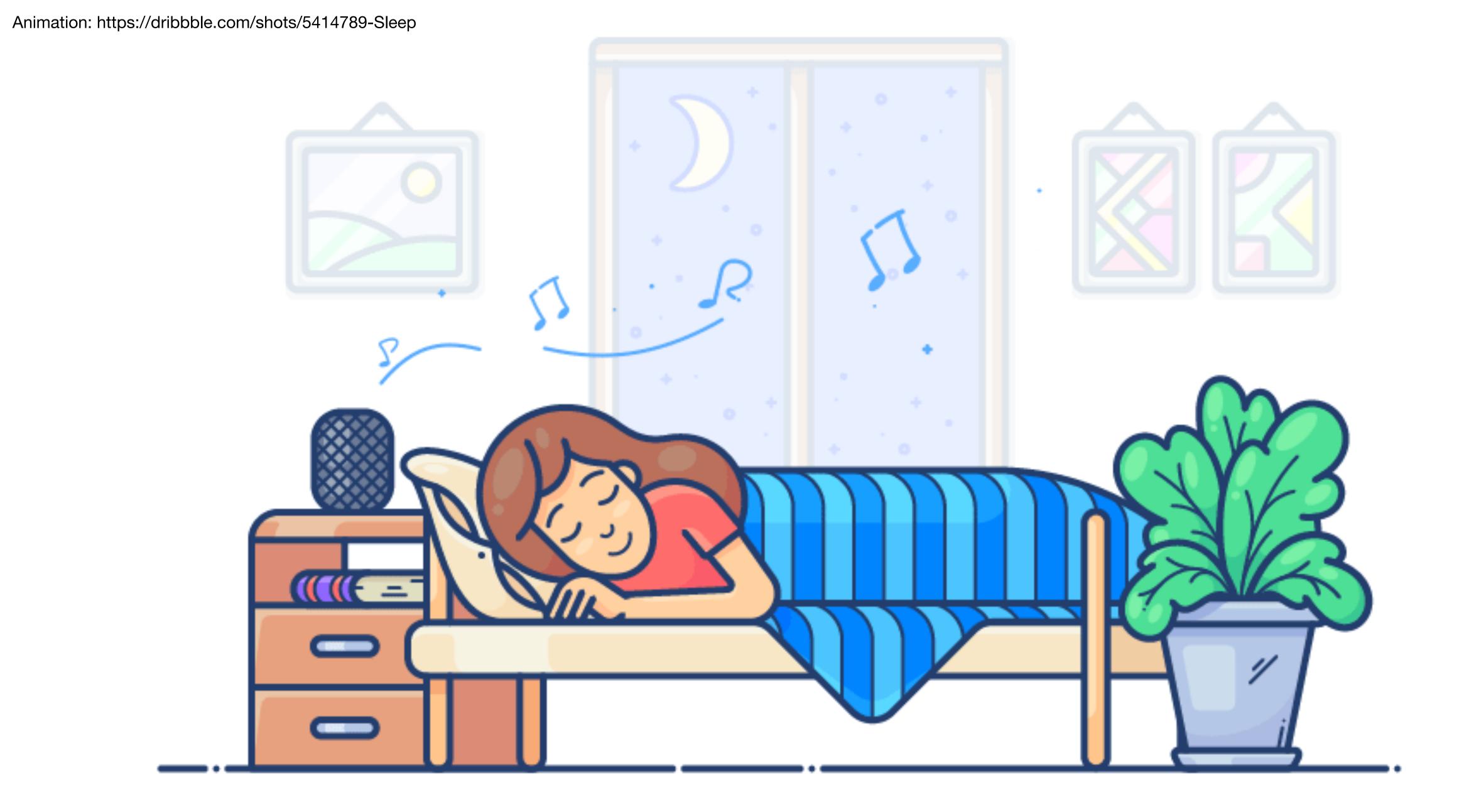


Picture: https://www.reddit.com/r/ProgrammerHumor/comments/7zfgwg/frontend\_vs\_backend/

Picture: https://www.getdigital.de/aufkleber-front-end-back-end.html

Picture: https://www.geeksforgeeks.org/what-is-the-difference-between-front-end-and-back-end-web-development/

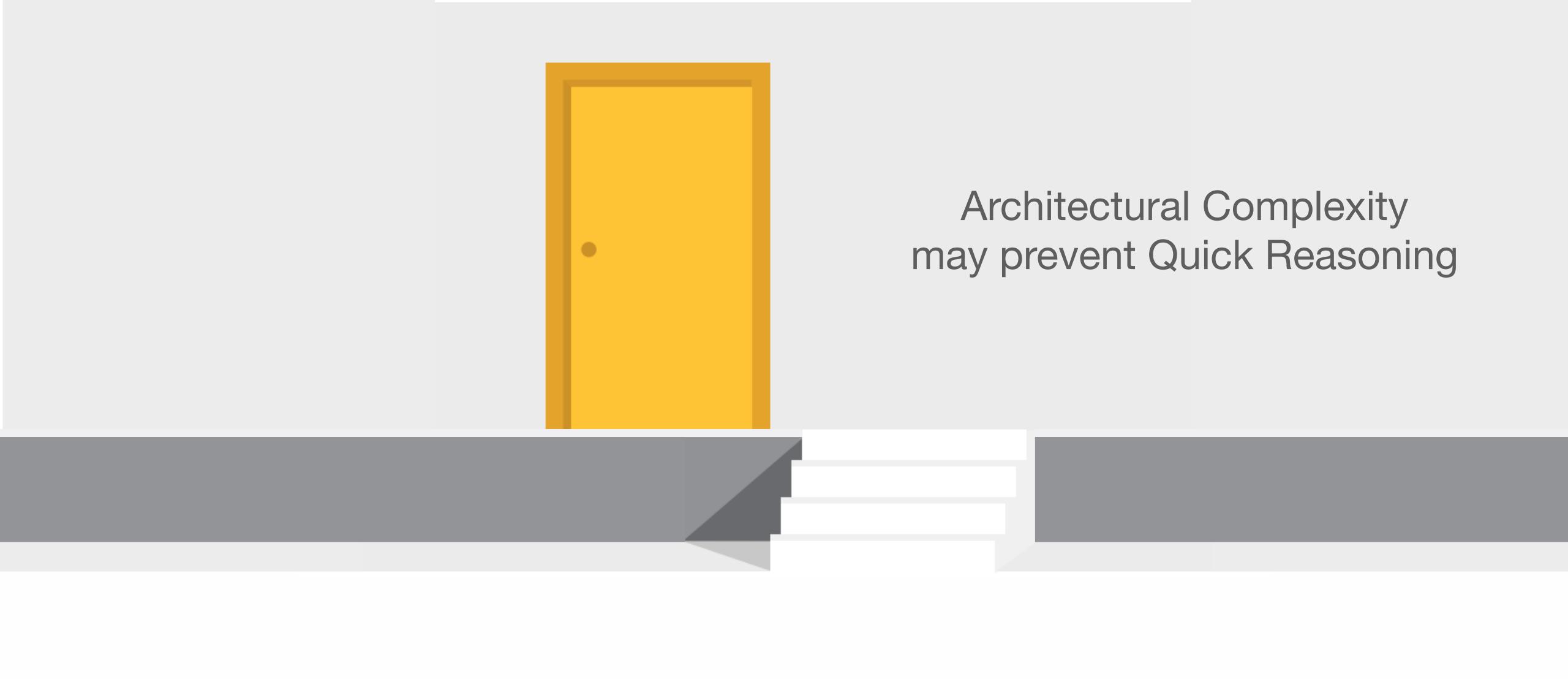




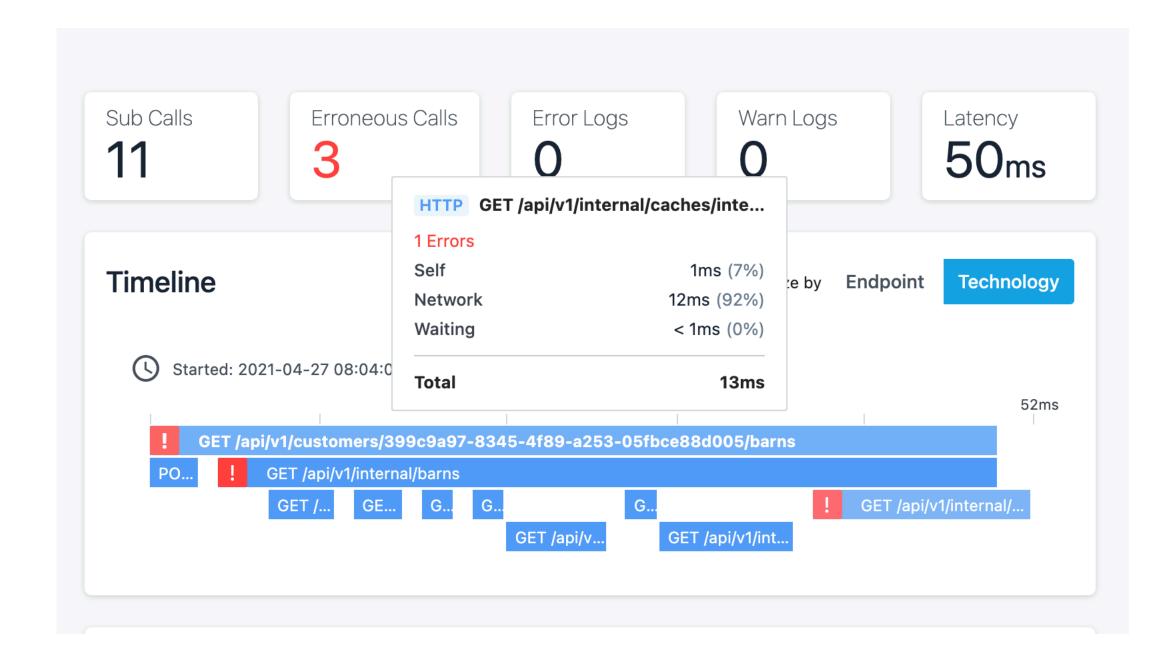
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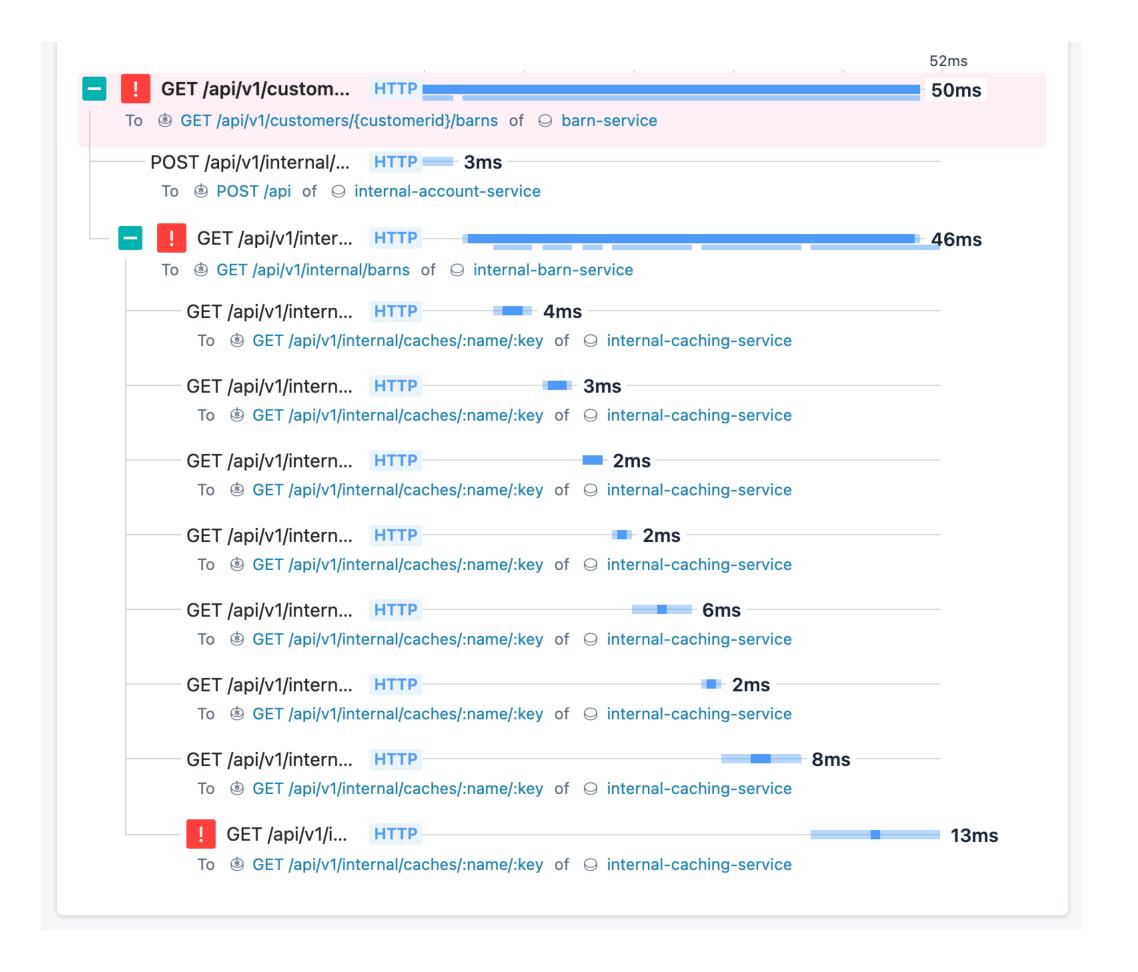




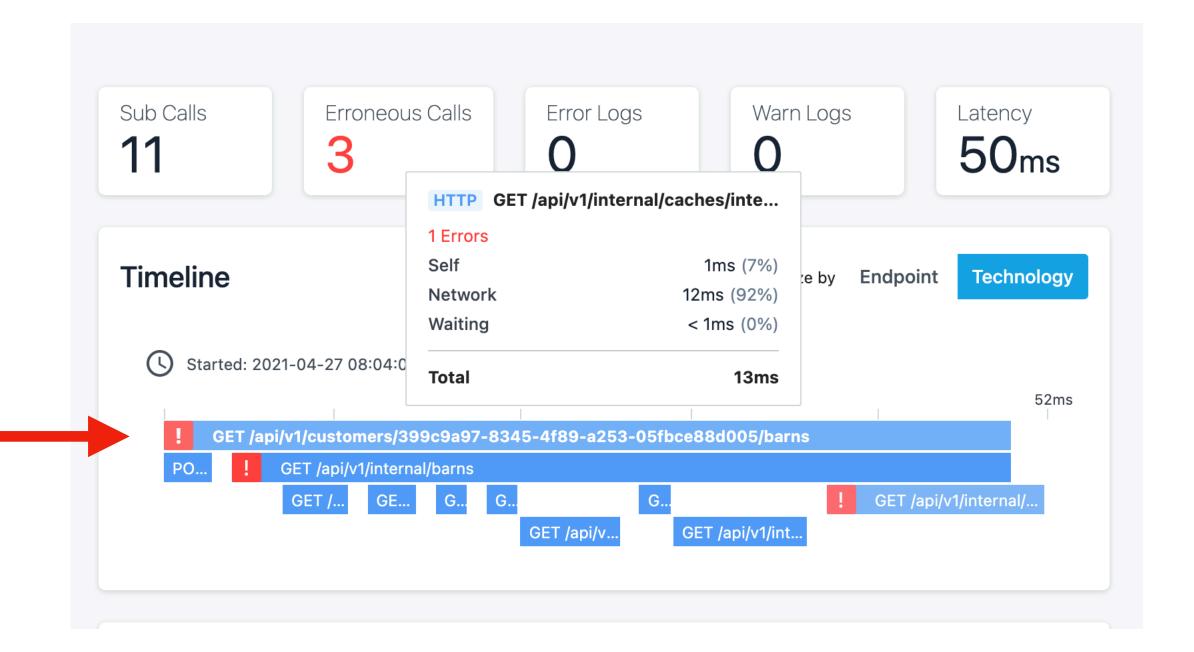


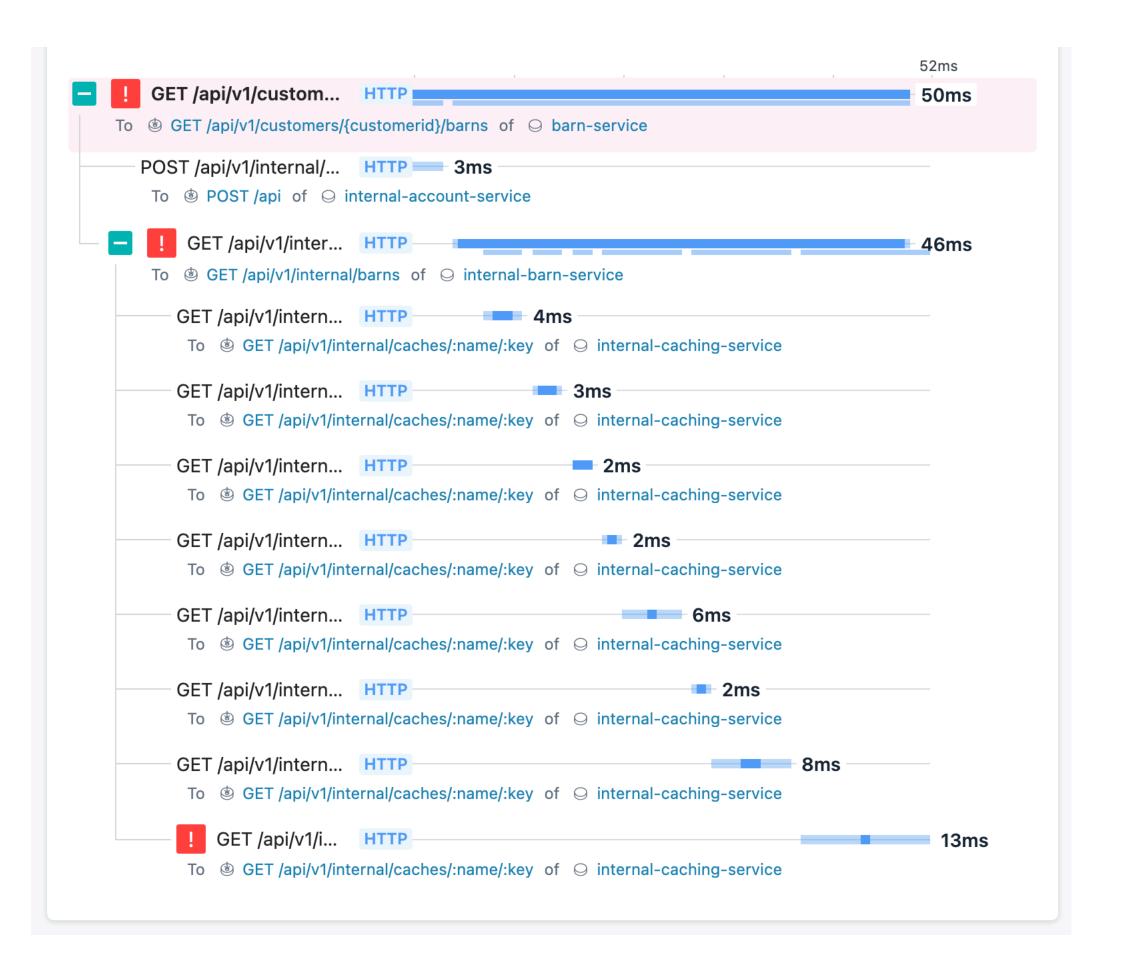




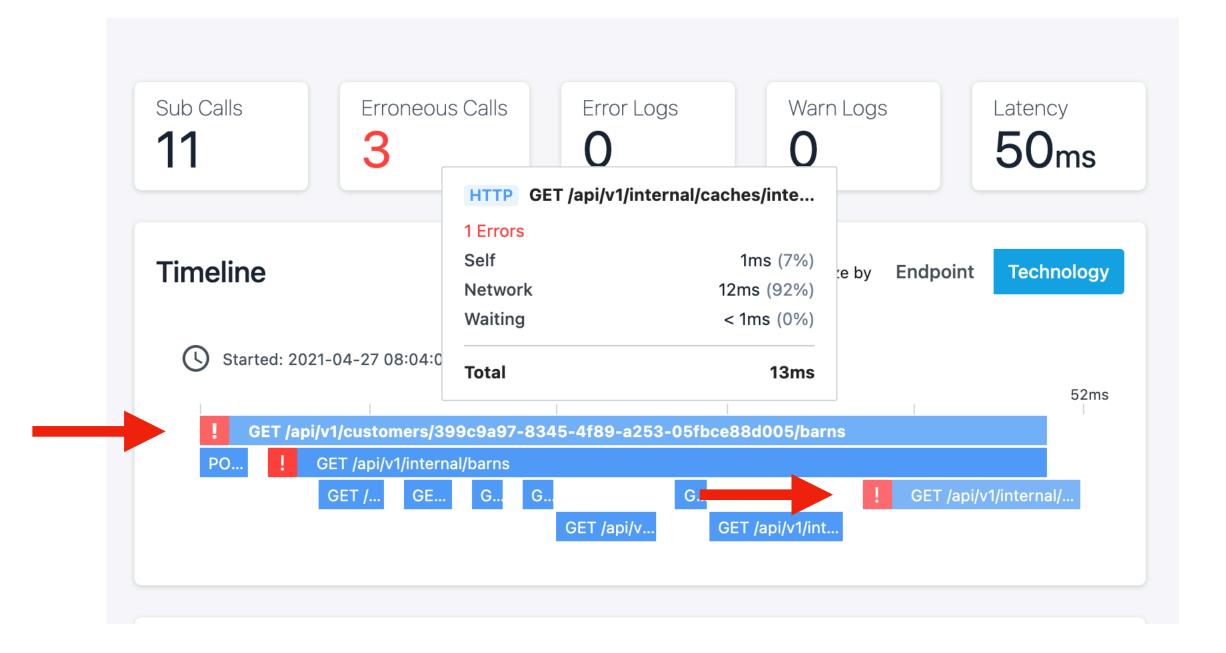


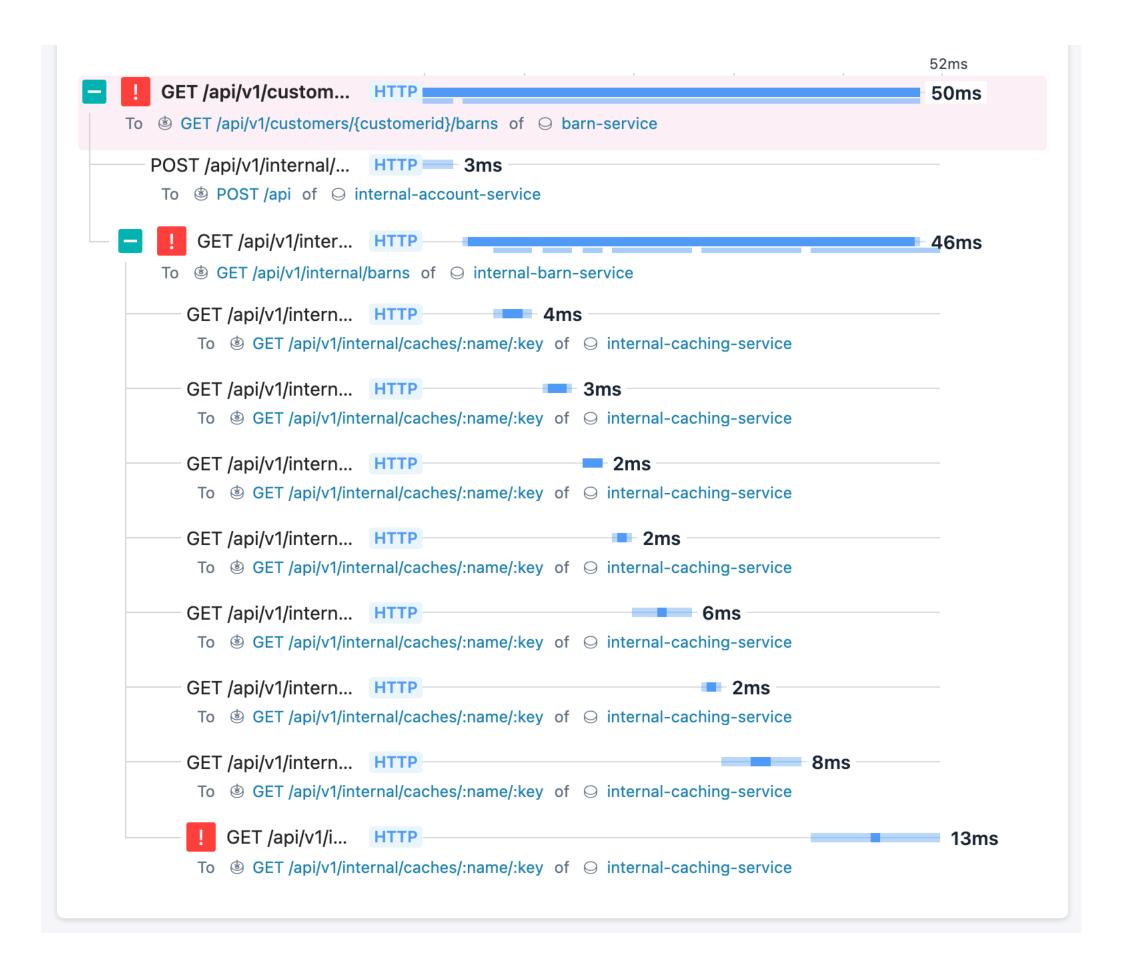






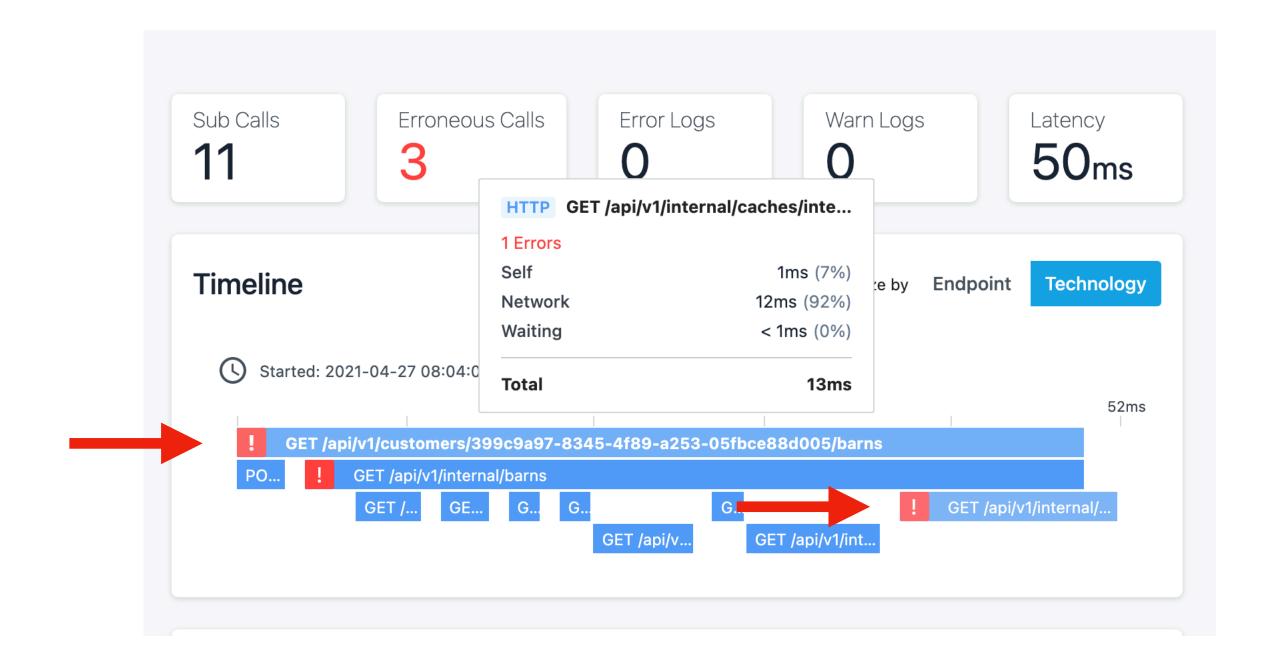








#### MTTGBTB

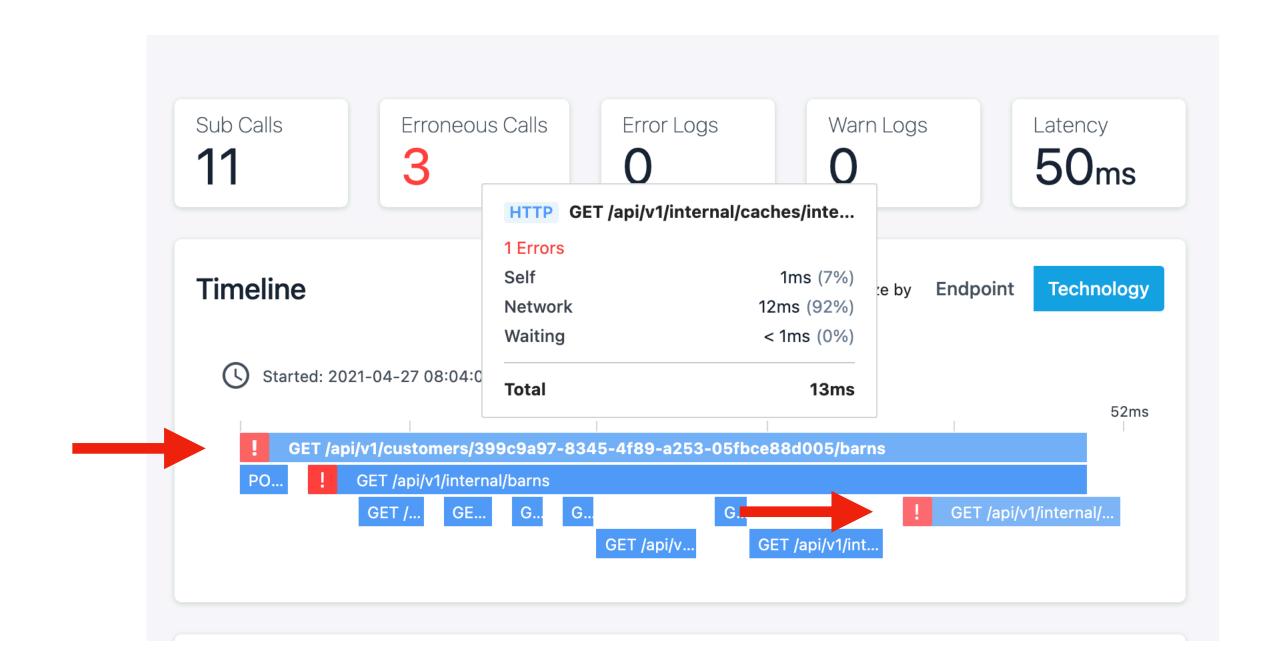




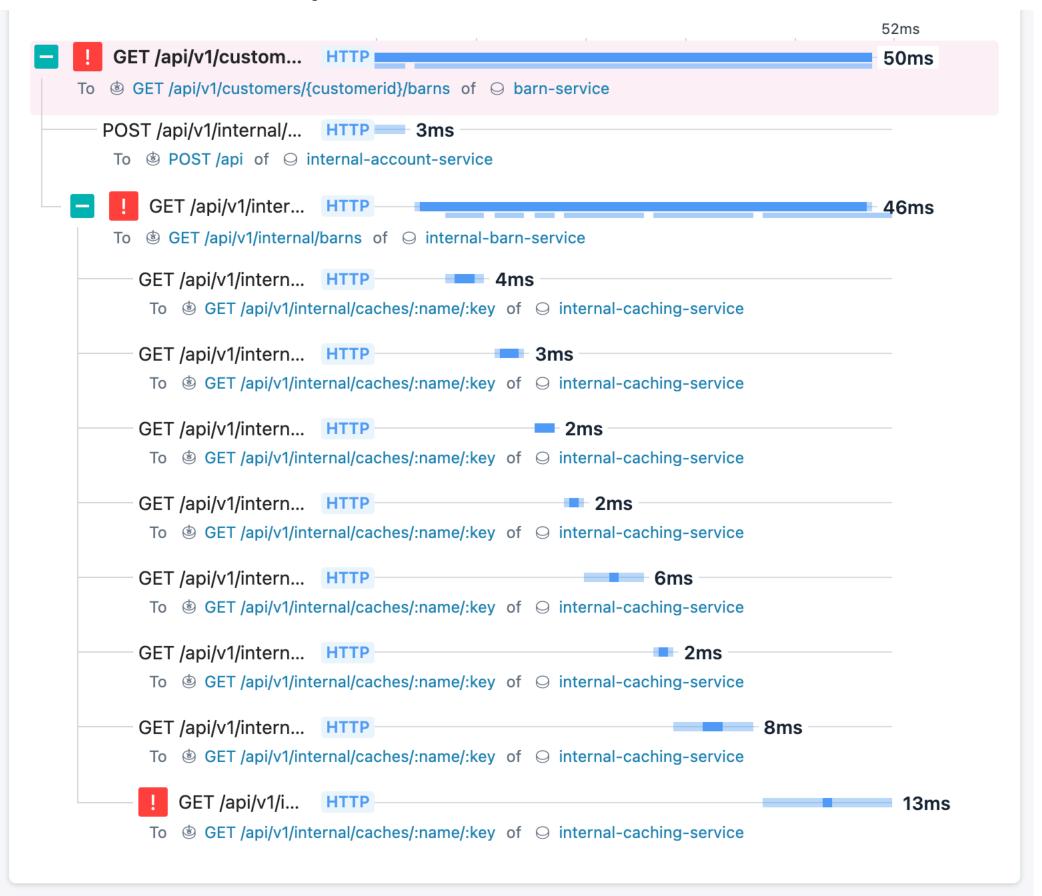


#### MTTGBTB

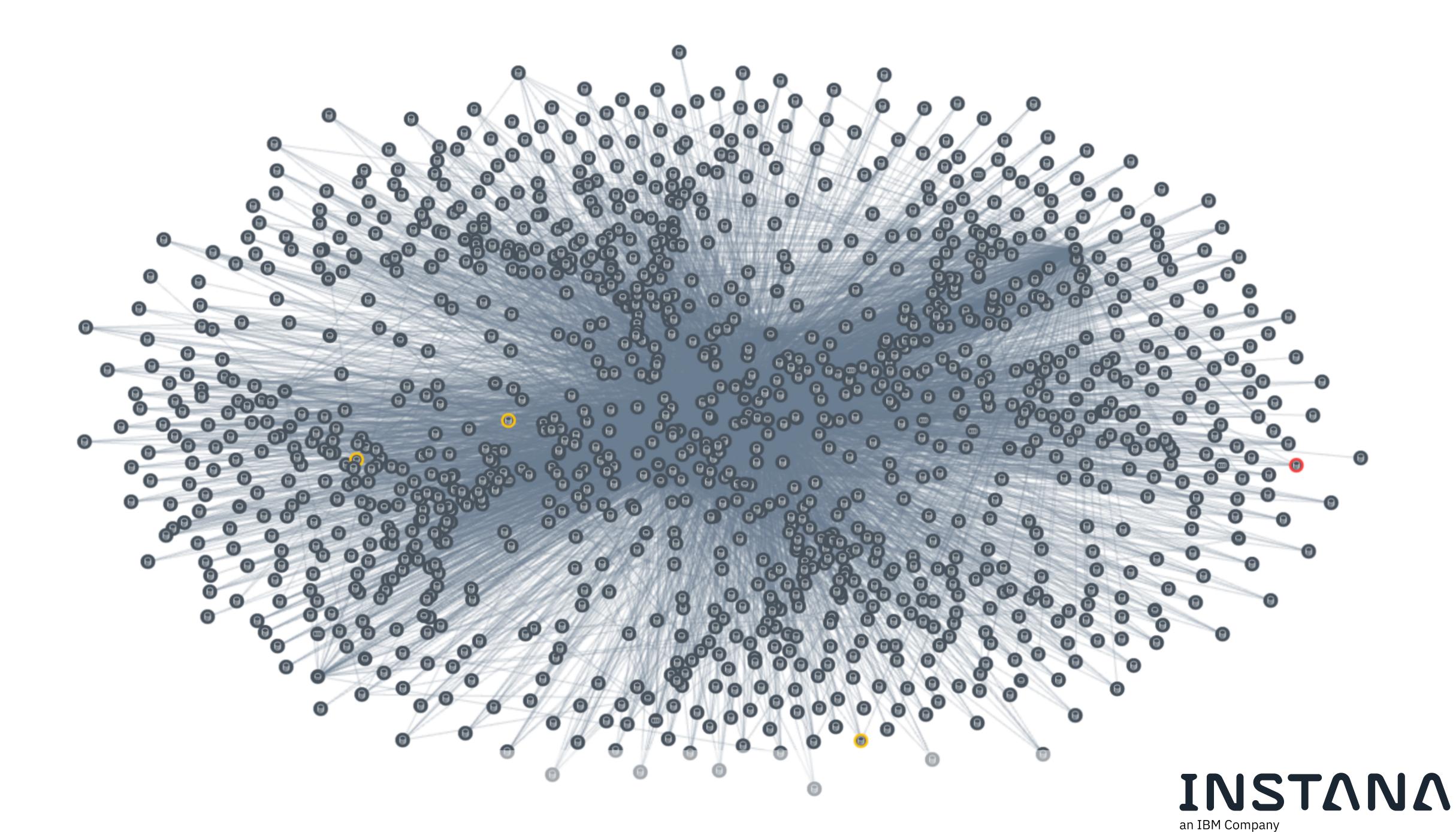
(Mean Time to Get Back to Bed)



#### By Karthik Kumar







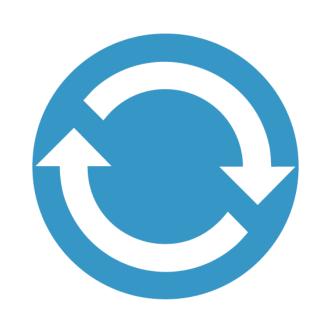




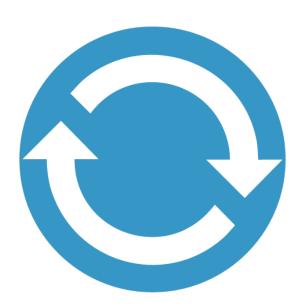


## 



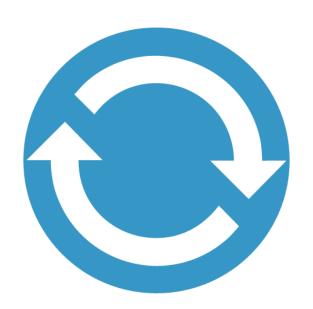






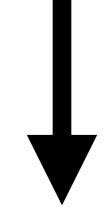




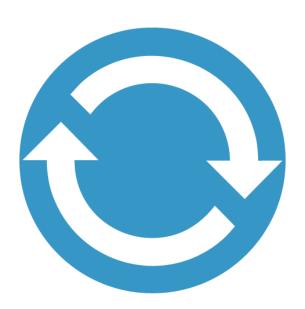




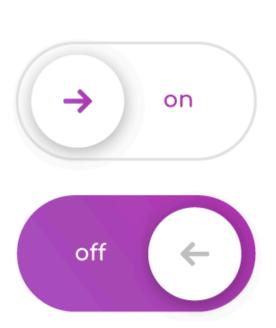




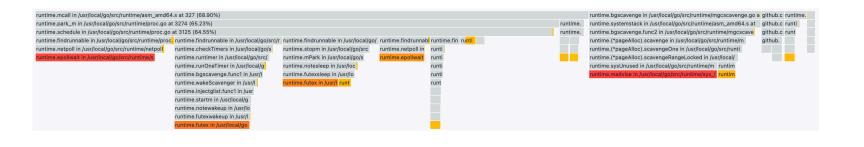
















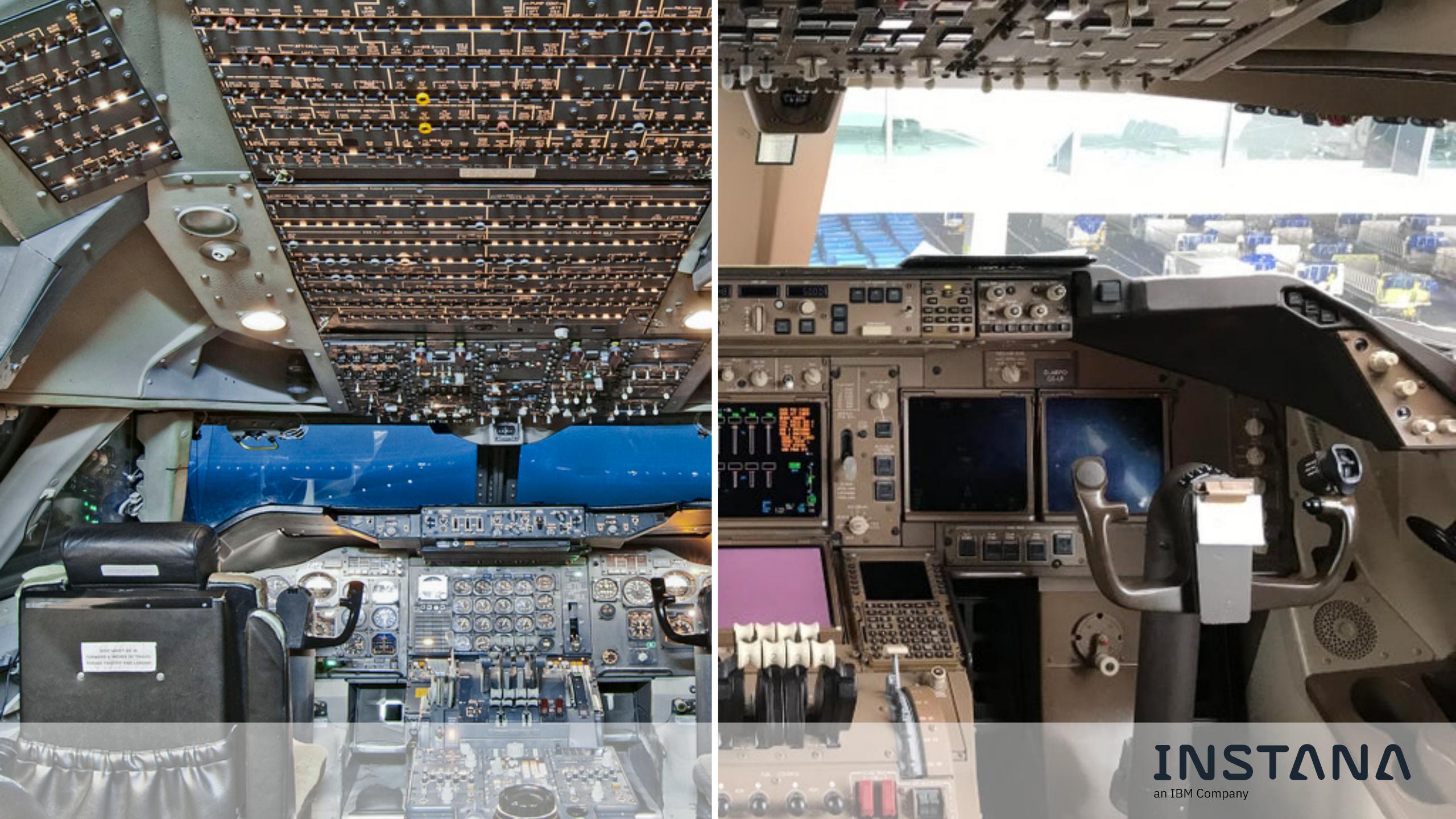


## Observability Driven Development

More Information, our Observability for Developers Ebook

https://instana.com/dev-observability





# Question? Let's talk in the chat!

