



STATE OF THE INDUSTRY IN
APPLICATION HEALTH

STATE OF THE INDUSTRY

- Product X will tell you if your application is healthy
- We pay a lot of money for product X to monitor product Y or application Z
- Sometimes we have also paid a lot of money for product Y
- **THIS IS NOT FINE**

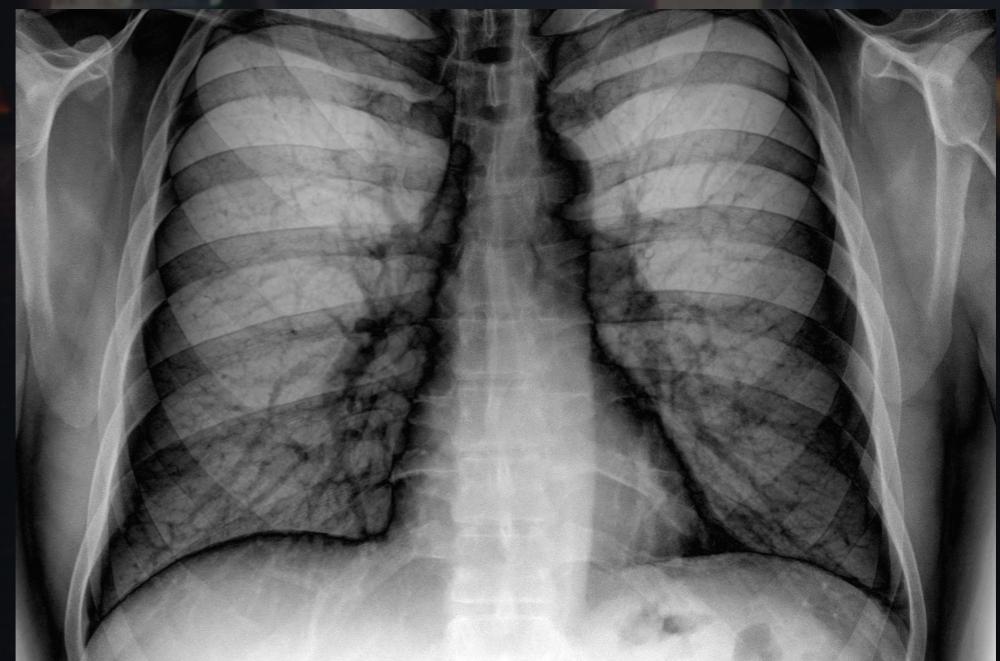


WE ARE BEING TAKEN FOR A RIDE!



THIS IS A RESPONSIBILITY PROBLEM

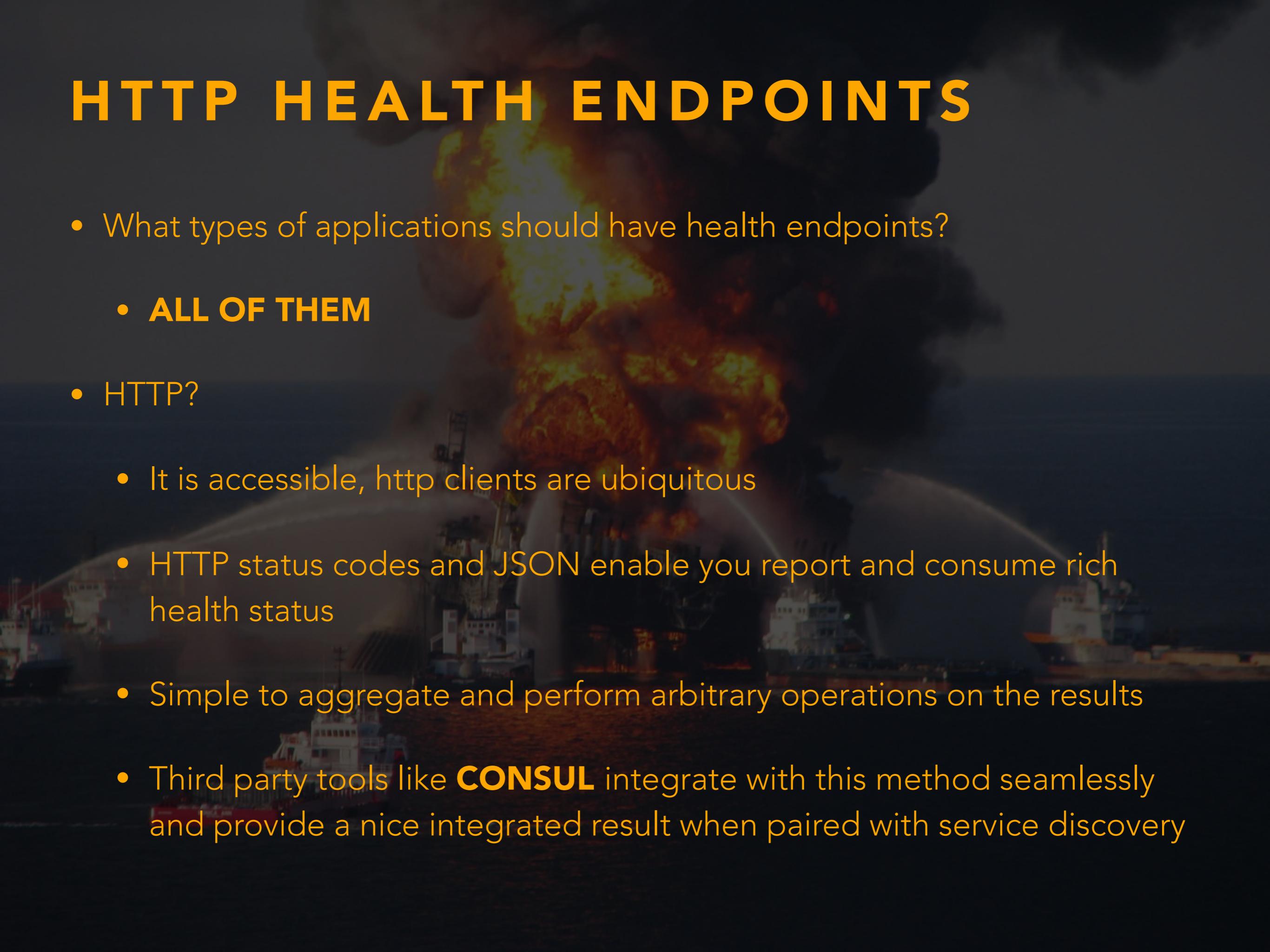
- Who is that understands the nature of a given application's health?
 - The application developer
- Where is the only place the health of an **ACTUAL** application can be assessed?
 - Within the application



FAST TRACK TO EASY APPLICATION HEALTH ASSESSMENT

- **HTTP** health endpoints
- Health endpoints and **DEPENDENCIES**
- Health endpoints and **PRODUCT VENDORS**

HTTP HEALTH ENDPOINTS

A dramatic photograph of a large industrial fire at night. The scene is filled with intense orange and yellow flames, with thick, dark smoke billowing upwards against a dark sky. In the background, silhouettes of industrial structures like storage tanks and pipes are visible, partially obscured by the smoke and fire.

- What types of applications should have health endpoints?
 - **ALL OF THEM**
- HTTP?
 - It is accessible, http clients are ubiquitous
 - HTTP status codes and JSON enable you report and consume rich health status
 - Simple to aggregate and perform arbitrary operations on the results
 - Third party tools like **CONSUL** integrate with this method seamlessly and provide a nice integrated result when paired with service discovery

HEALTH DEPENDENCIES :: AT A MINIMUM

A dramatic night scene of a large cargo ship engulfed in a massive, billowing fire. The intense orange and yellow flames dominate the center of the frame, casting a dark glow over the surrounding area. Several fireboats are visible in the background and foreground, their powerful streams of water directed at the burning vessel. The sky is dark, and the overall atmosphere is one of a major industrial emergency.

- An application should also check and return status for the health of its dependencies

HEALTH DEPENDENCIES ::ADVANCED

Example Health Response

```
GET /health
STATUS 500

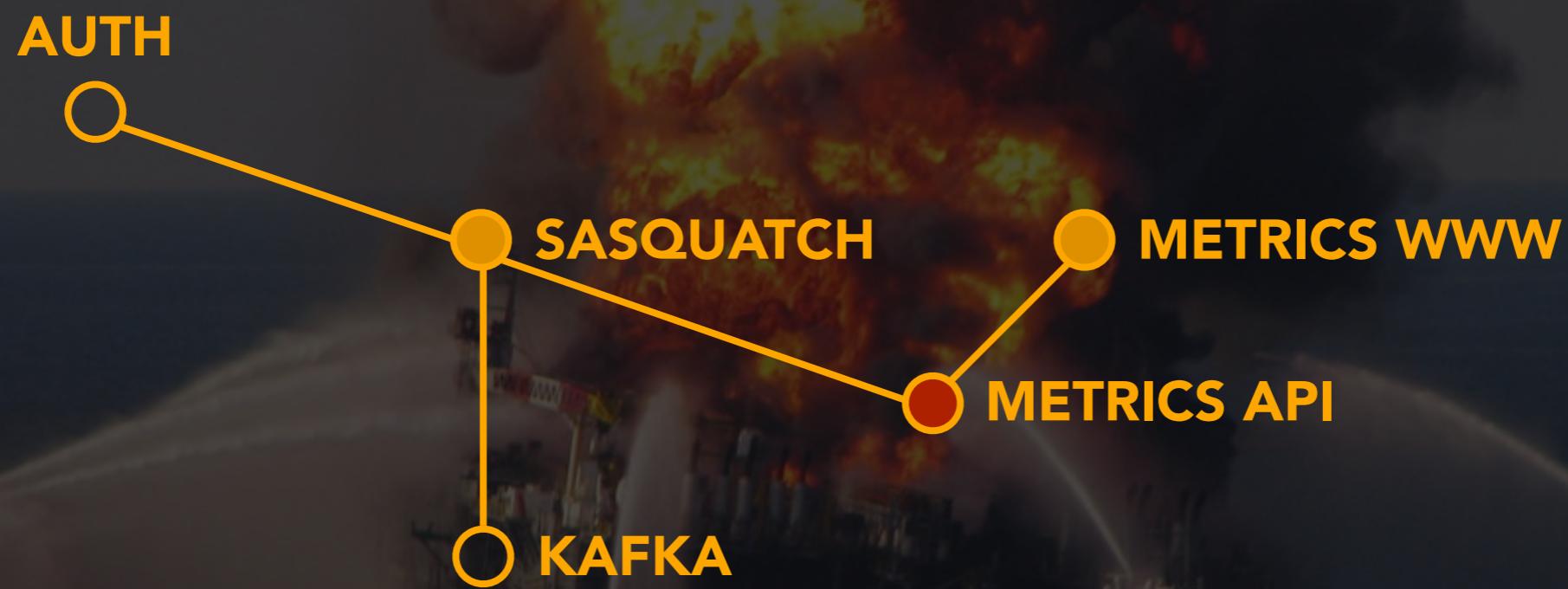
{
  "einstein": {
    "healthy": false,
    "message": "message detailing the failure and failed component",

    "dependencies": {
      "cassandra": {
        "healthy": true
      },

      "fooservice": {
        "healthy": false,
        "message": "http connection timed out"
      },

      "kafka": {
        "health": true,
        "message": "all partitions on time"
      }
    }
  }
}
```

HEALTH DEPENDENCIES :: MAPPING A FAILURE



PRODUCT VENDORS

- For the most part vendors and OSS projects are not adding http health endpoints to their applications
 - Put pressure on them to do so
- There are some good guys out there:
 - **ElasticSearch** is one of them:
 - `:9200/_cluster/health`

Z, DO THE PULSE DEMO

- Why is Pulse important to this community?

**THE BIGGEST TRICK CONSULTANTS EVER PULLED WAS
CONVINCING THE WORLD THAT CONTINUOUS DELIVERY
WAS EASY**

- Paul Stack

