



Using Open Source Observability with Lambda

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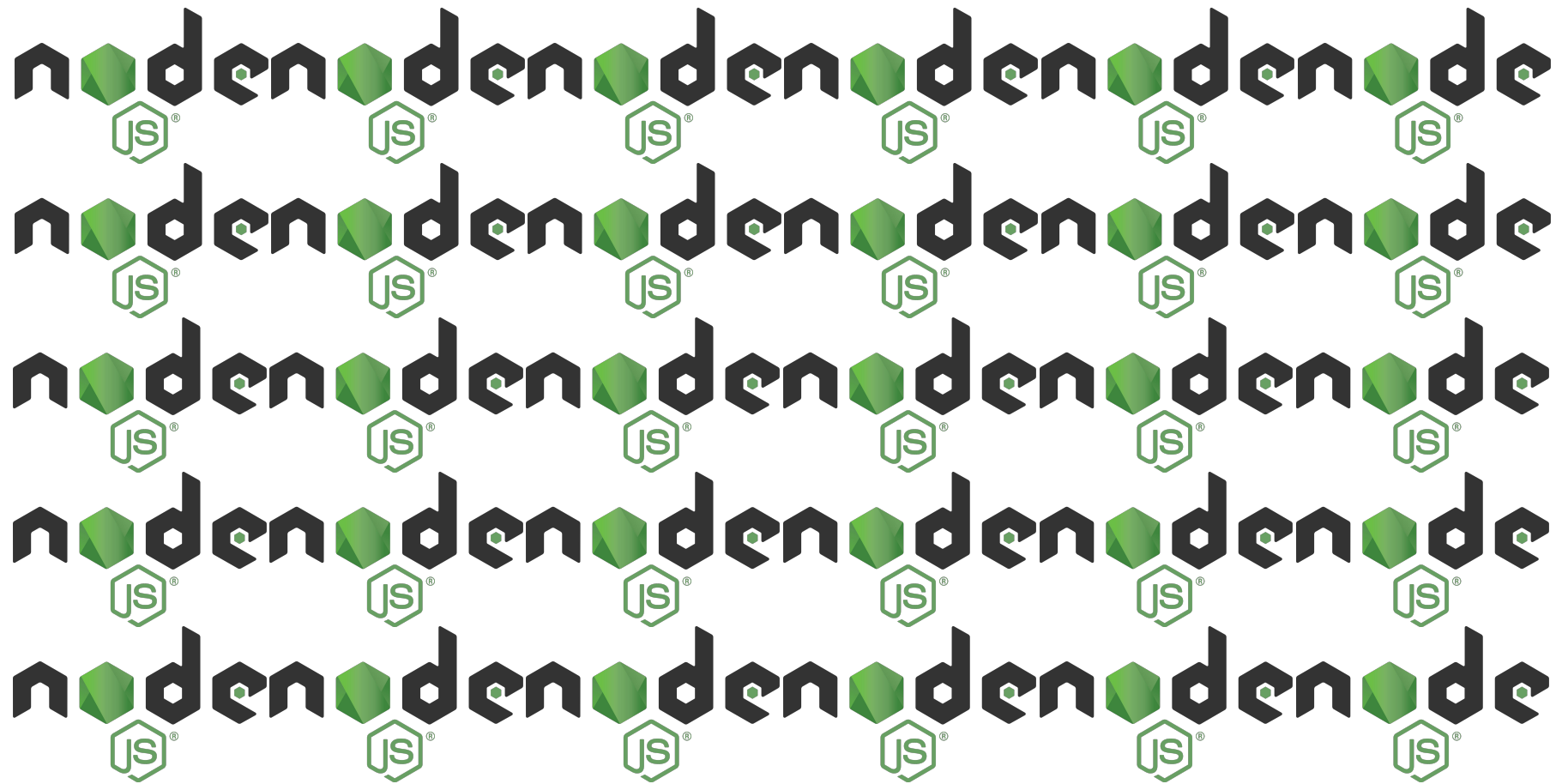




**So what's the
problem?**



In reality...



986,317



LAMBDA

LAMBDA EVERYWHERE


```
> node cli.js -D
```

```
error: hello there debug:true , then use winston
```



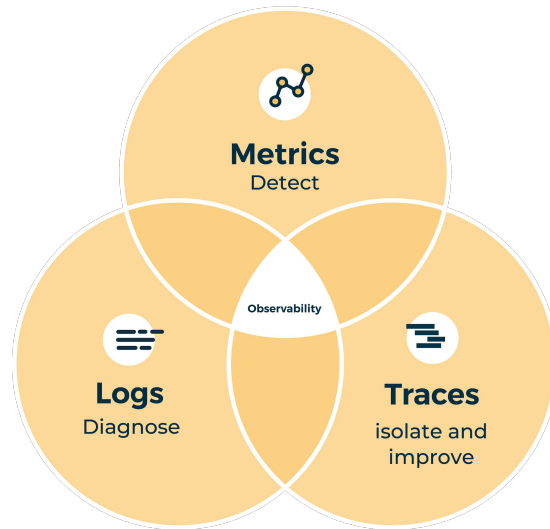
The next step...

Observability?

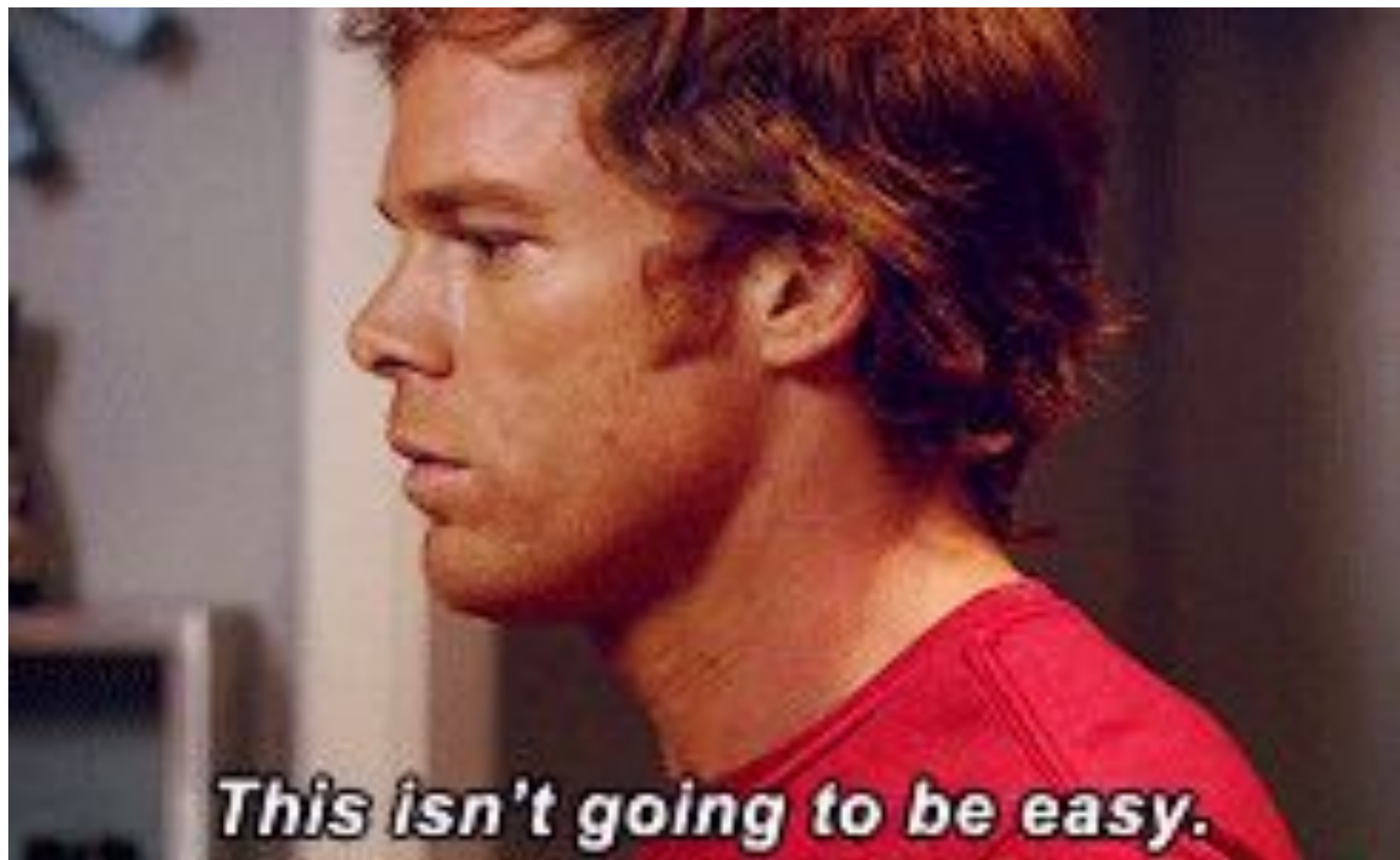
What is Observability?

Automated and manual instrumentation

*“**Observability** is a measure of how well internal states of a system can be inferred from knowledge of its external outputs.”*









Event Logs

Easy Mode

What are event logs?

- Immutable data point
- Timestamp and the discrete data for the event
- Usually in either
 - Plaintext
 - Structured
 - Binary

What's the best Open Source tool?

ELK Stack

Elasticsearch, Logstash, and Kibana

...also comes with Beats

...specifically Filebeat for shipping logs



System Metrics

Intermediate Mode

What are system metrics?

- Immutable numeric representations of data
- Consist of name/label, datapoint, and timestamp
- Can be system defined values, such as CPU/Memory %, etc
- Can be custom defined, such as user behaviour

What's the best Open Source tool?

- Grafana
- Prometheus



Tracing

Hard Mode

What is tracing?

- End-to-end flow of an application
- Consist of traces and spans
- A single trace follows the path of data
- A span represents the component the data passed through
- Best used with microservices, but can be used with service designs in general

What's the best Open Source tool?

- Jaeger
- Zipkin



Demo Time

Wish me luck





Questions?

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