Once Upon a Time...

Alerts don’t suck.
YOUR alerts suck!

@LeonAdato
Principal Technical Evangelist

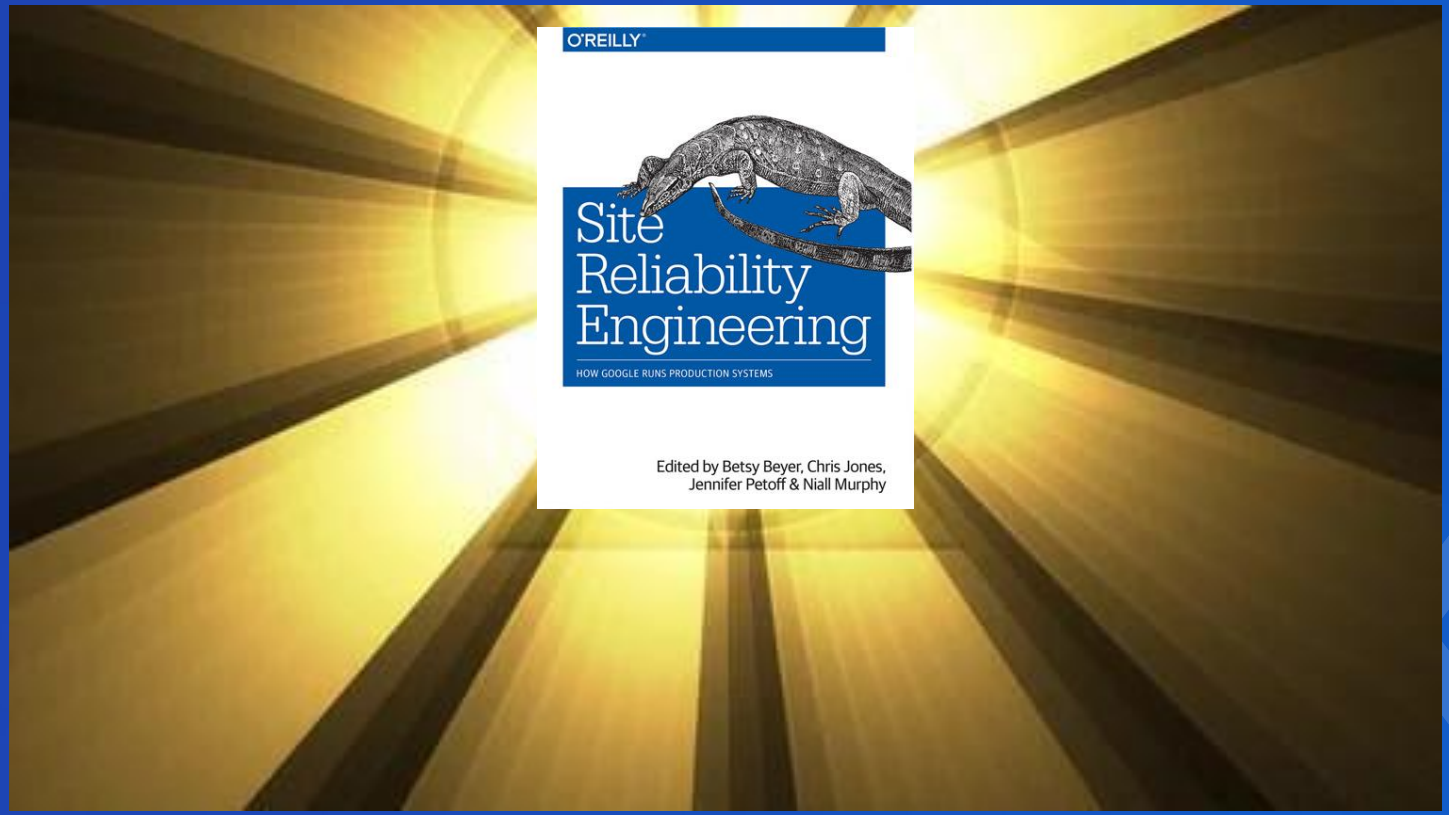
Leon Adato

- Principal Technical Evangelist
  - ***at Kentik***
- ~35 yrs in tech.
- ~25 yrs monitoring & observability.
- ~10 yrs as a Tech Evangelist, DevRel Advocate, and (ugh) “Head Geek”.
- Tivoli, BMC, OpenView, janky perl scripts, Nagios, SolarWinds, DOS batch files, Zabbix, Grafana, New Relic, and other assorted nightmare fuel.

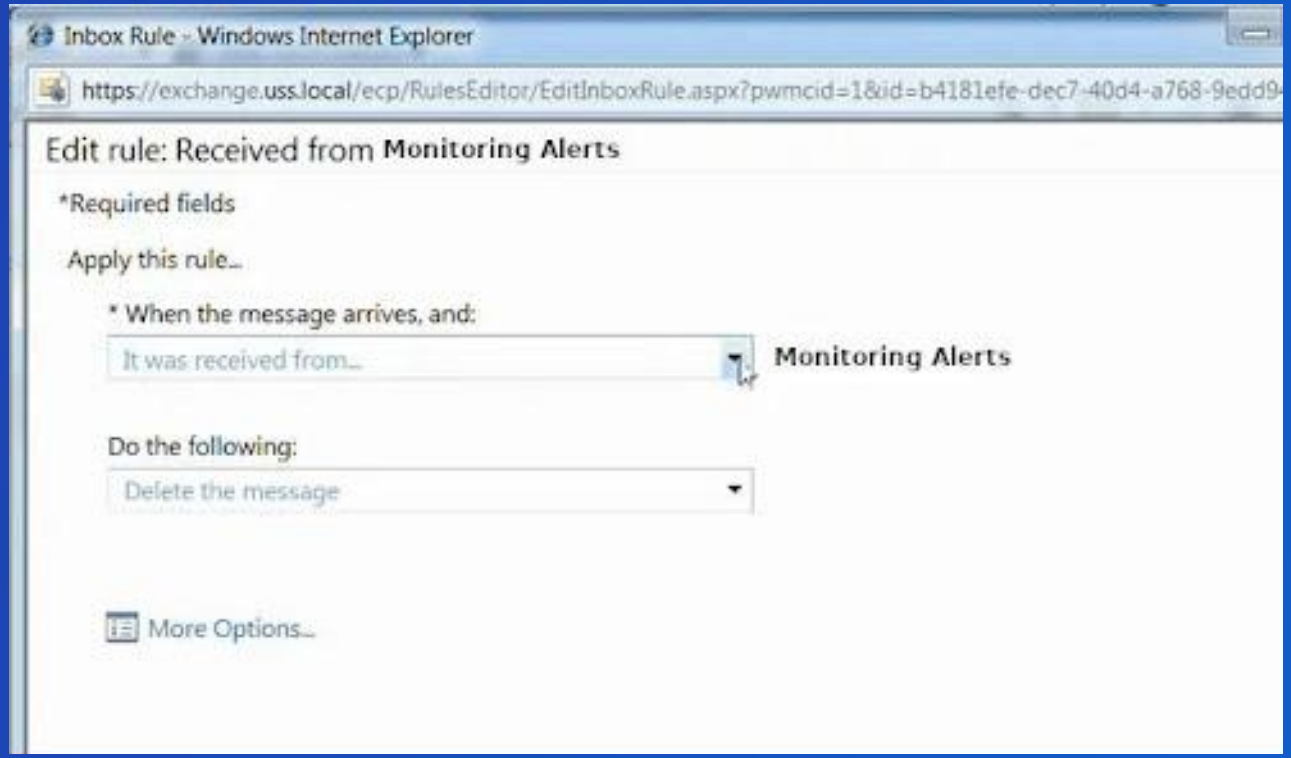
@LeonAdato on almost all social media.

This is an Oyster Talk™

The Good Book Says....



Inbox rules are like a$$holes...*



** Everyone has one, and they all stink*

A hill I will die on

"¿Ke es esta medra?" - Leon's Abuela

(courtesy of Honeycomb.io)

Lesson One:
Alerts Are… what?!?

Three Important Rules:

- Alerts <> Monitoring
- Alerts != Monitoring
- Alerts ≠ Monitoring

About once a year…

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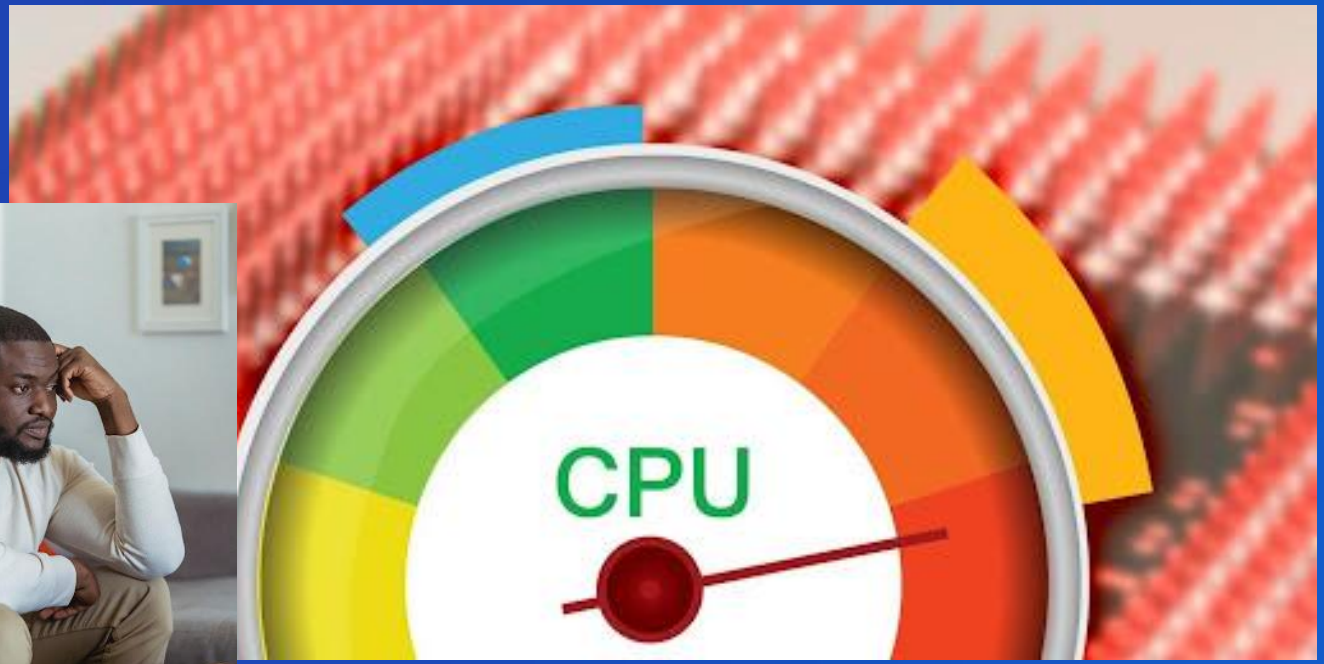
The problem with high CPU alerts isn’t the CPU



Hold up…

Lesson Two:
Monitoring vs Observability

Lesson Two:
~~Monitoring vs Observability~~
Monitoring AND Observability

Let’s add a little nuance

Observability

- Un-Known Unknowns
- High cardinality
- Correlation baked-in
- Golden signals
  (latency, traffic, errors, saturation)

Monitoring

- Known Unknowns
- All cardinalities welcome
- (mostly) manual correlation
- Domain-specific signals

Alerts and Observability

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Alerts and Observability

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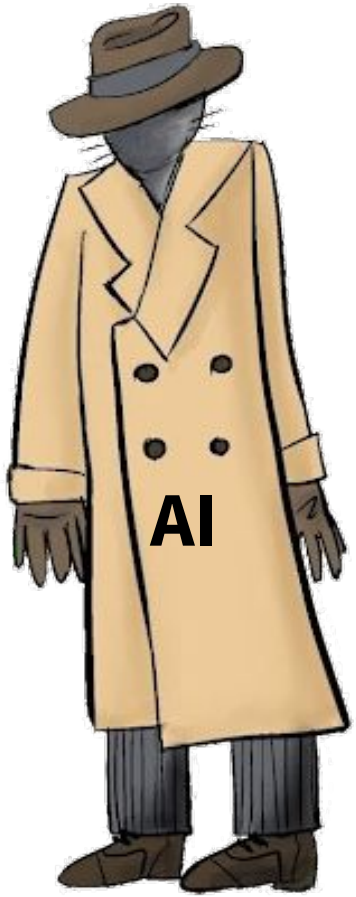

Alerts and Observability

Observability

- Un-Known Unknowns
- High cardinality
- Correlation baked-in
- Golden signals

Designed by M. Scharlock

Lesson Three:
Alerts Must Matter

A simple algorithm:

IFF(Human && do something && now && about $problem) == true

IFF(Human && do something && now && about $problem) == true

If it's not an alert,

- (!= human)
- (!= now)
- (!= problem)
- (!= doing something)

What is it?

== automation

== report

== dashboard

== delete

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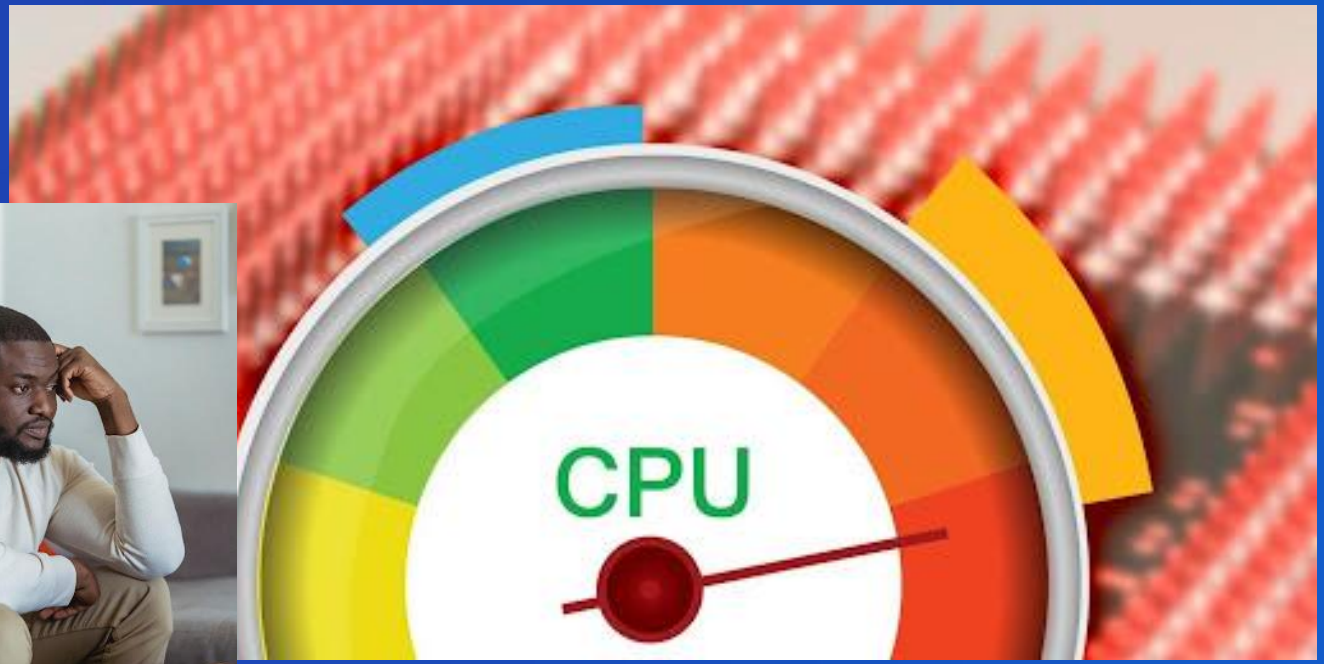
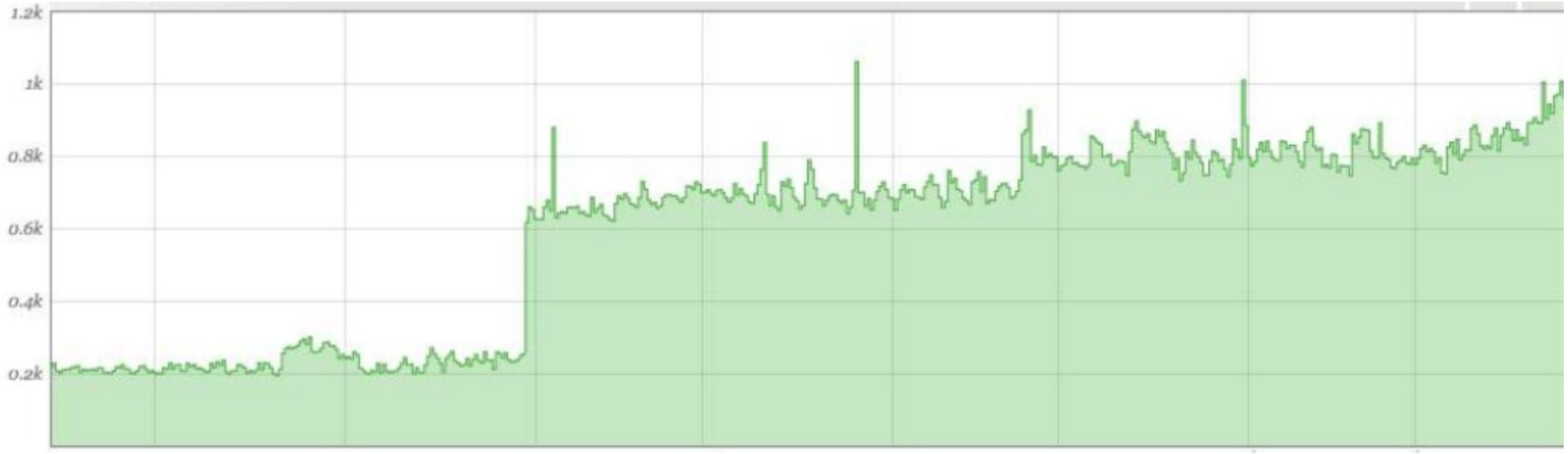
The problem with high CPU alerts isn’t the CPU

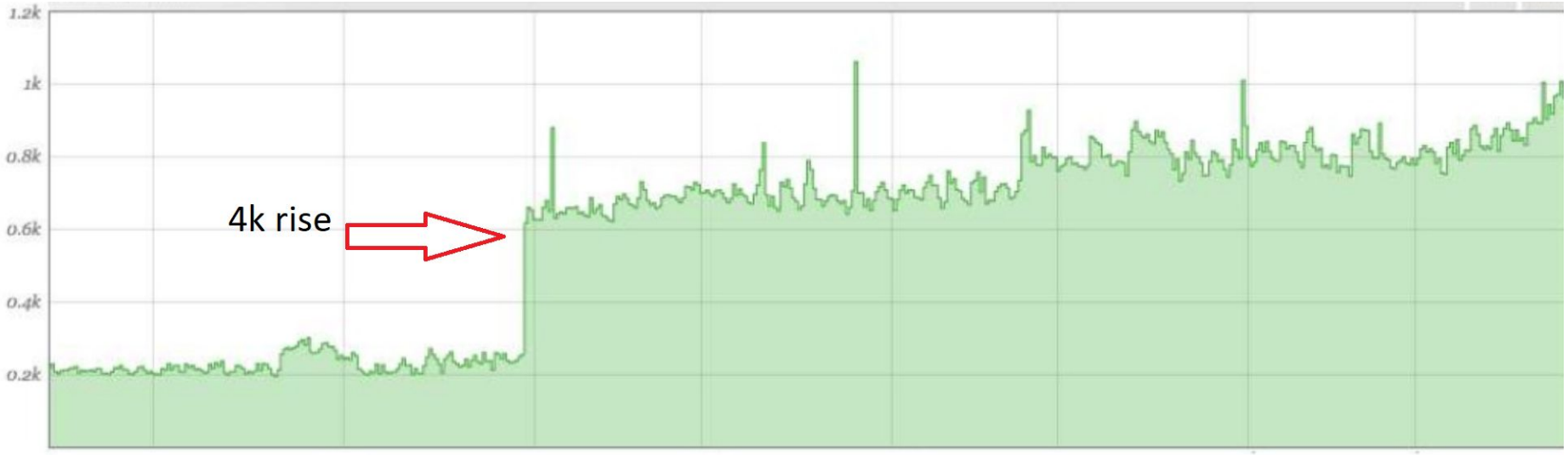


Do you see it?



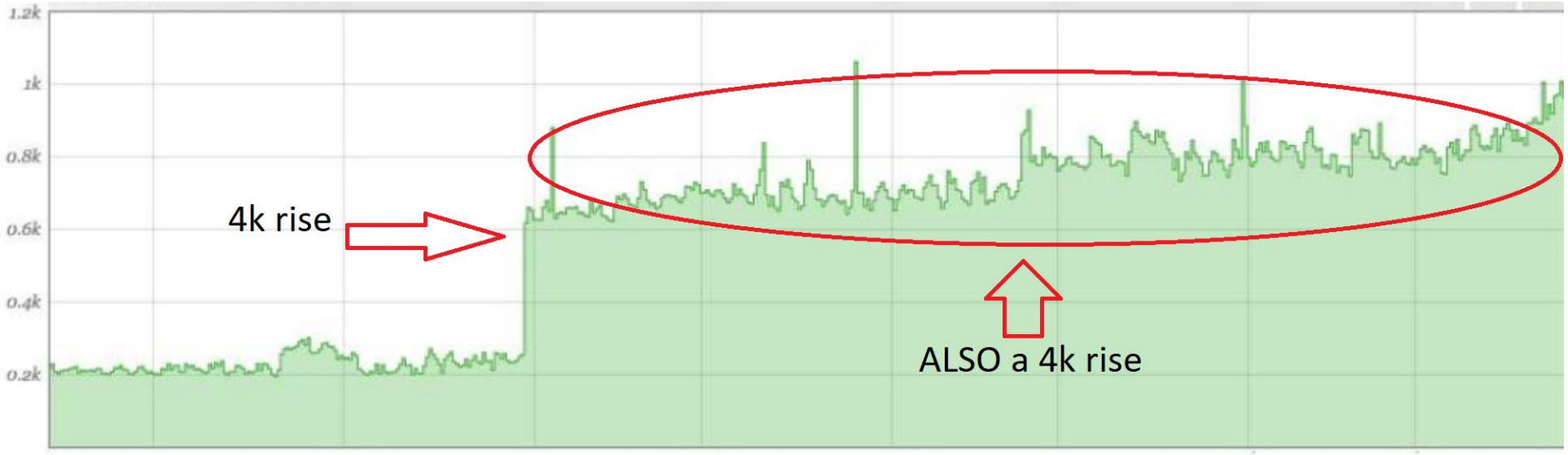
Credit: Leon Fayer

Do you see it?



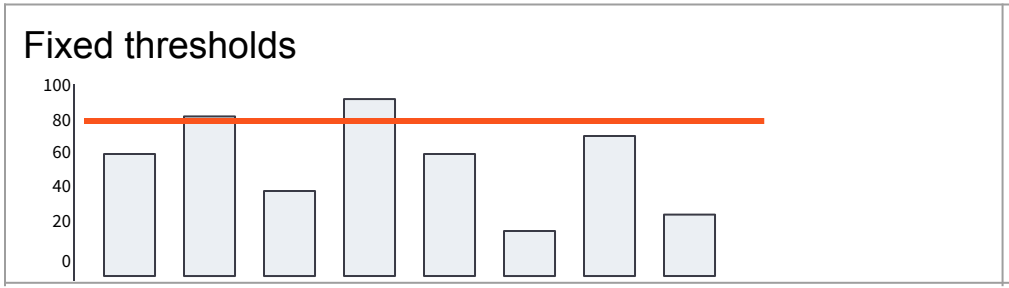
Credit: Leon Fayer

Do you see it?

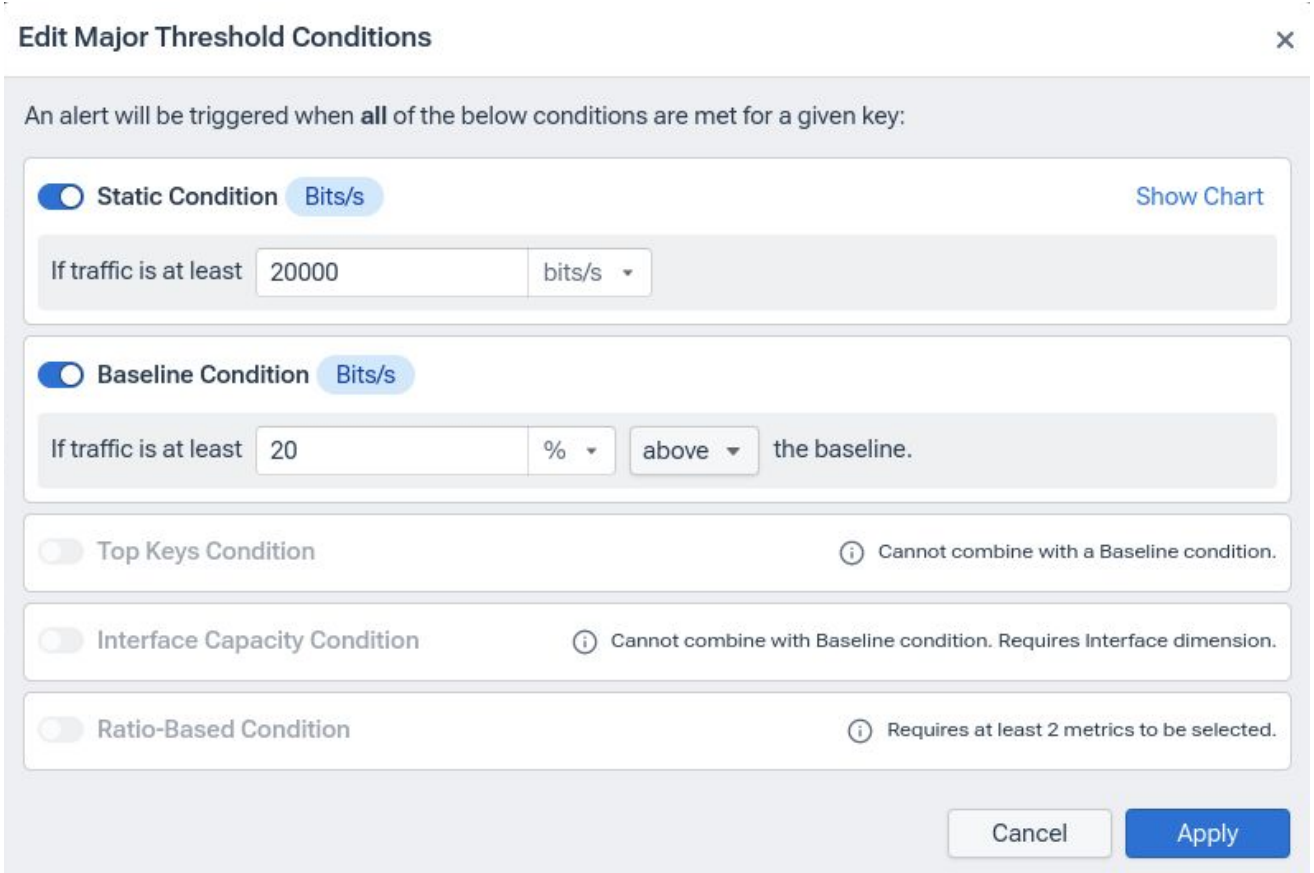


Credit: Leon Fayer

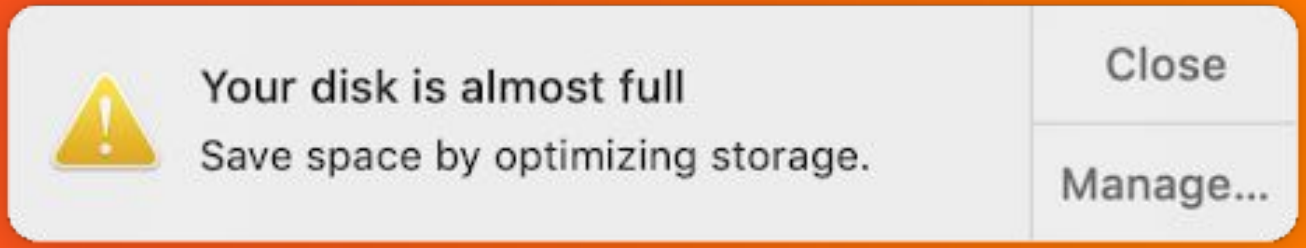
Monitoring is like Music: Both need a solid baseline!



Threshold + Baseline Example



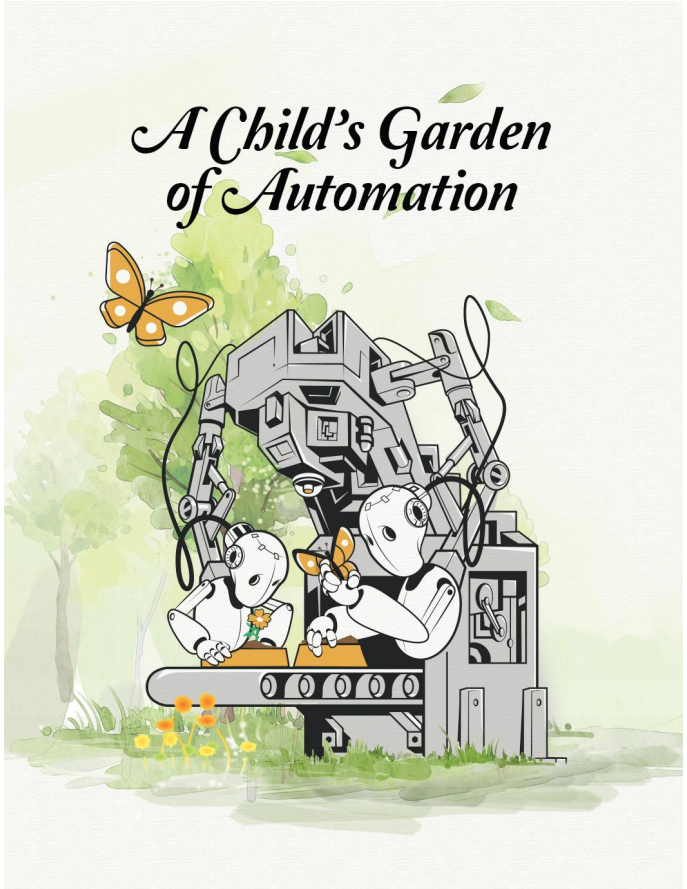
Yes, it’s a problem



But what do you DO about it?

What we have here is…
…a failure to AUTOMATE

When (this thing) goes wrong,
What do YOU do about it?



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A cascade of (automated) joy

IIS App is slow
- Clear the Application Pool
- (wait)
  - Reset the IIS service
  - (wait)
    - Rebuild from image
    - (wait)
      - Move to new region/site/whatever
      - (wait)... then send ticket

Lesson Four: Skilled Interrogati…

Interviewing

Hunting the great “useful alert”

- How do YOU know when something went wrong?
- How do you know it's "all better"?
- Is there a knowledge article for it (yet)?
- Can you make it happen on purpose?

Prove value with this one weird trick!

Name	Cost w/out	Cost with	Alert qty	Total Saved
Order Entry Slow	$150	$25	23	$2,875
Order entry down	$500	$125	2	$750
Disk Full	$275	$20	322	$82,110

Let’s sum up:

- Identified and interrogated the recipient
- Designed alert that matters because it
  - Has real-world trigger elements
  - Takes duration and baseline into account
  - Includes automation
- Verified the alert is built with the intent of immediate action by a human
- Communicated the value to the business

Lesson Five:
The work never ends

From the Pages of the Sages

הֲפֹךְ בָּהּ וַהֲפֹךְ בָּהּ, דְּכֹלָּא בָהּ

“Turn it over, and [again] turn it over, for all is therein.”

- Pirkei Avot (Ethics of the Fathers) 5:22

לֹא עָלֶיךָ הַמְּלָאכָה לִגְמֹר
וְלֹא אַתָּה בֶּן חוֹרִין לִבָּטֵל מִמֶּנָּה

“It is not your duty to finish the work,
but neither are you at liberty to neglect it.”

- Pirkei Avot 2:16

YOU MADE IT!!!

Get our famous TCP/IP cap by scanning the QR code below:

Are you  ?

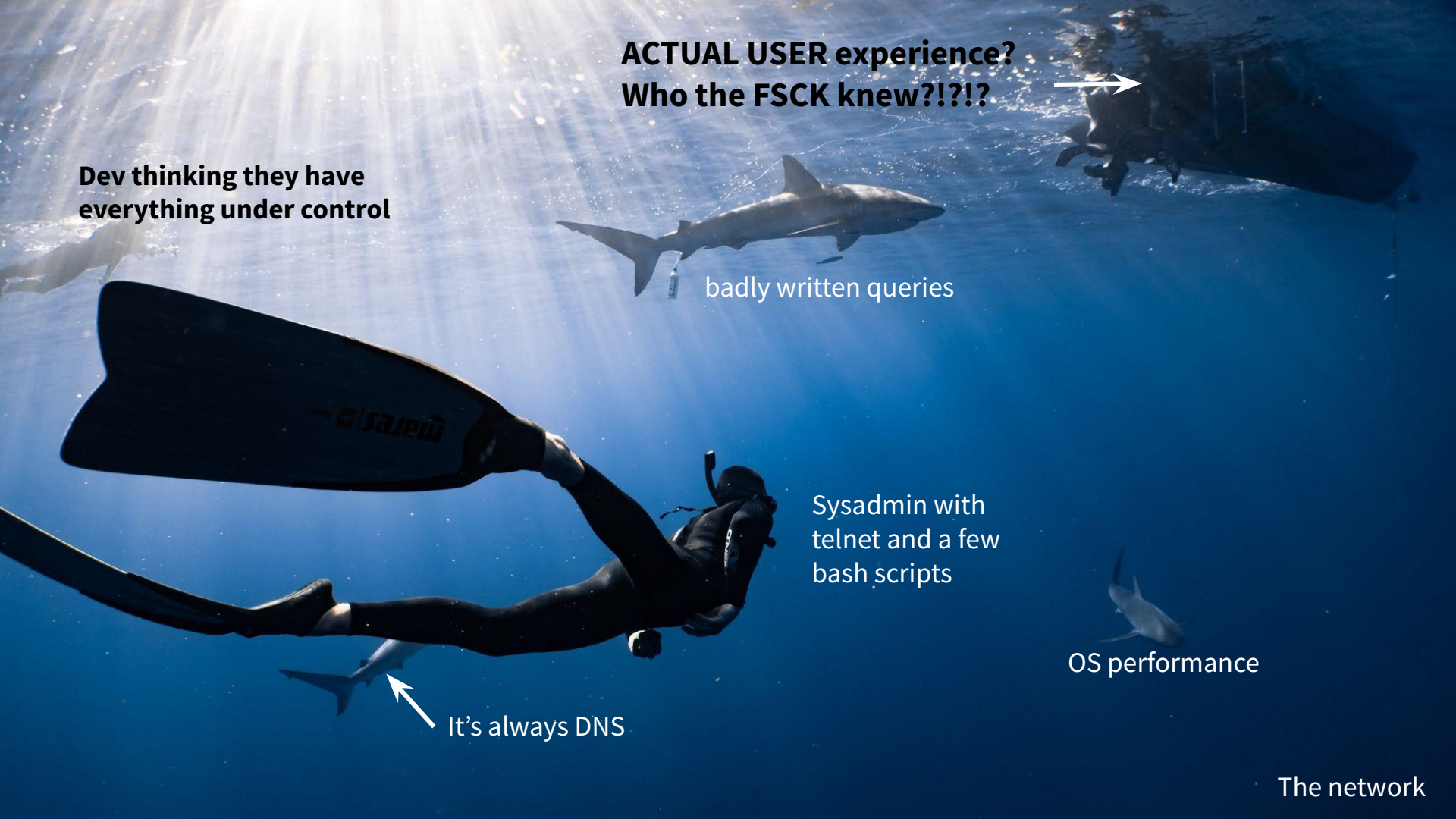
I’m ready for your questions!

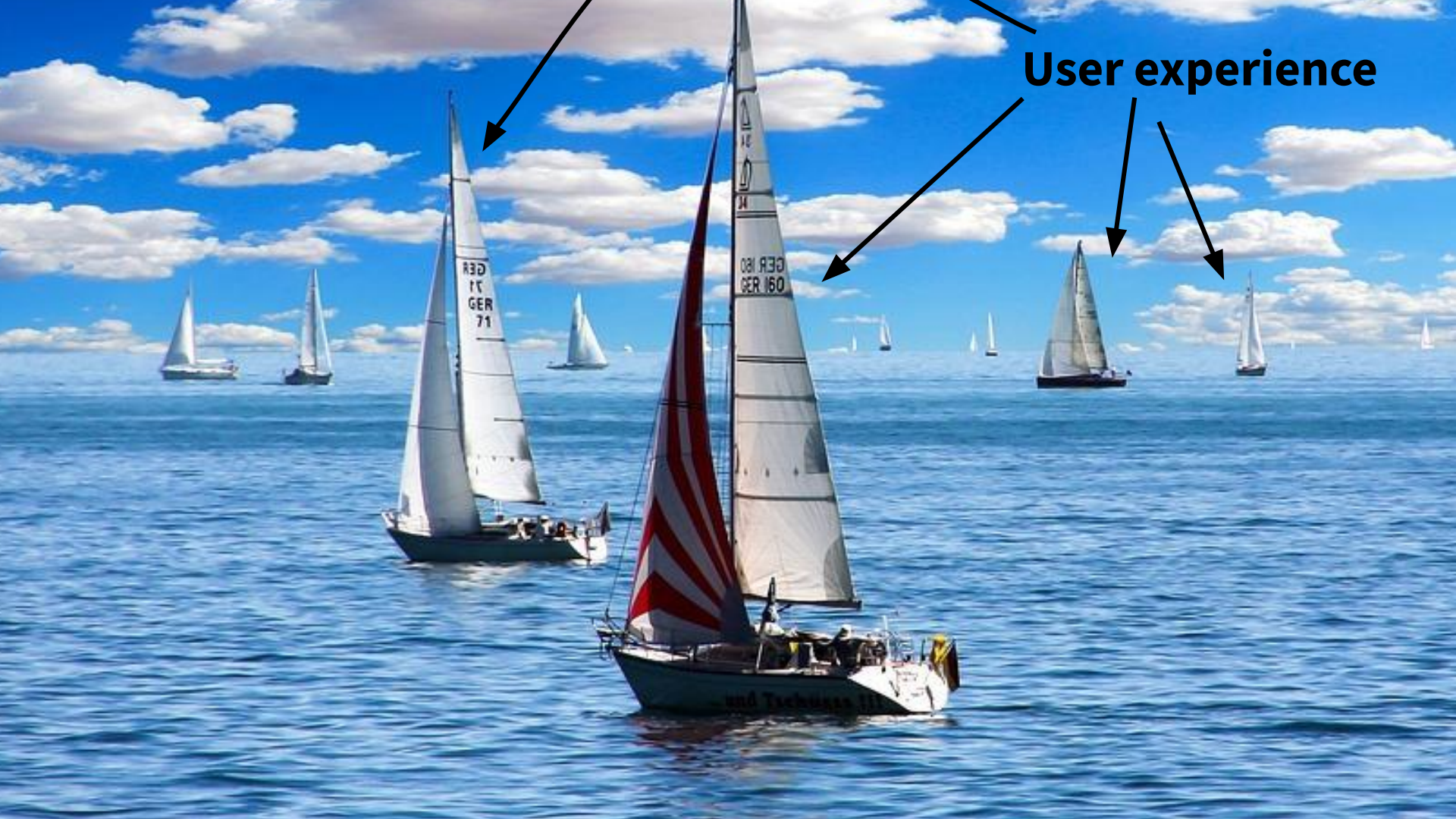
@LeonAdato

YOU MADE IT!!!

Get our famous TCP/IP cap by scanning the QR code below:

How Did We Get Here?


ACTUAL USER experience?
Who the FSCK knew?!?!?
Dev thinking they have everything under control
badly written queries
Sysadmin with telnet and a few bash scripts
OS performance
It's always DNS
The network


User experience

Alerts represent a significant drag on the system
Query thyat runs every xx minutes against the ENTIRE data set
Do not overwhelm the system

"Monitoring sucks" is frequently because there are 2,000 alerts that are competing for resources.

