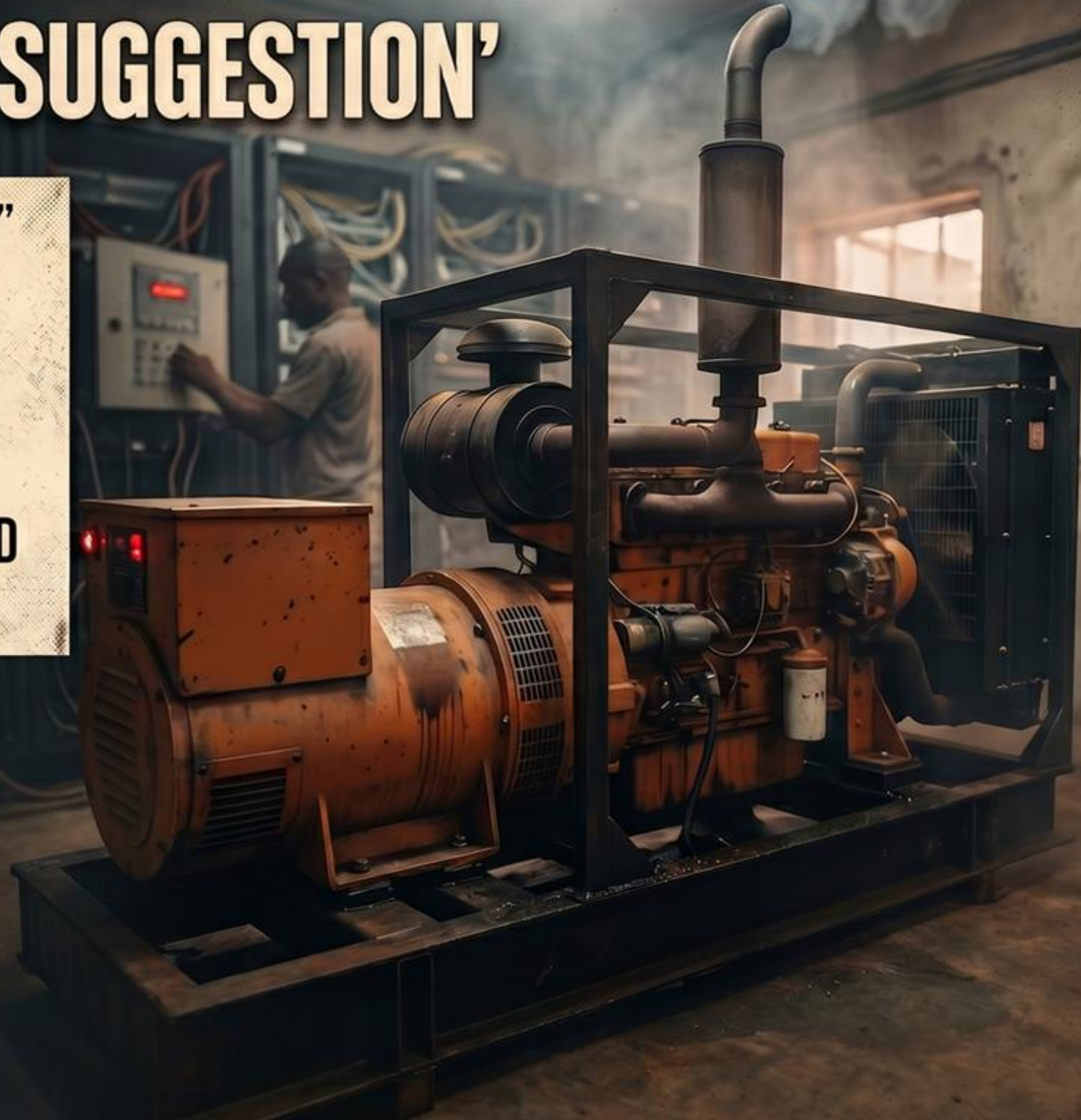


THE GRID IS A 'SUGGESTION'

- IN NIGERIA, "STEADY LIGHT" IS A MYTH.
- POWER COMES THROUGH RANDOM WINDOWS.
- A MIX OF FAITH, HOPE, AND TECHRHNICIAN TIPS.



THE NATIONWIDE RESPONSE

- WHEN THE 'SUGGESTION' VANISHES, POWER FAILS.
- A COLLECTIVE, GUTTURAL, NATIONWIDE ROAR.
- EVERY WINDOW, OFFICE, AND CORNER AT ONCE.



For us, "NEPA" isn't just an acronym

- "A COLLECTIVE, GUTTURAL CRY."
- UNSAVED CODE VANISHES."
- INSTANTANEOUS TROPICAL HEAT."

For us, "NEPA" is failure, interruption, and starting over.

YOU WAIT FOR THAT
2:00 AM WINDOW

when the grid randomly snaps back to life, waking you up in the dark.

2:00

Manual switch never clunked

PUSH COMMITS
SYNC REPOSITORIES

git pull
Unsaved Changes (0%)

NEPA!

VARIED LIGHTS

MANUALLY HAMMERED
RESILIENCE,
FAILURE
EXPOSURE

PUMP WATER

MANUALLY HAMMERED
RESILIENCE, FAILURE
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HUDE
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EXPOSURE

SYSTEM COLLAPSE AND REDUNDANCY

- **CRITICAL POWER LOSS:** The **silence** of grid failure is immediately broken by a '**secondary chorus**' of countless petrol generators.

- The **roar** of these generators is an entire ecosystem spinning up its redundancy layer in real-time.

NEPA!



Talk

Building resilient engineering teams when failure is the default



King Immanuel Edoh (he/him)

*Senior Product & Engineering Lead, Digital
Planet X & Code Campus*

LDX3

Talk

Building resilient engineering teams when failure is the default



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Planet X & Code Campus*

LDX3

NEPRA

ABUJA OFFICE IN ABUJA OFFICE

- “GRID COLLAPSED ALREADY THAT WEEK.”
- “HYPER-VOLATILE BLACK FRIDAY REALITY.”
- “MILLIONS OF DOLLARS IN VOLATILE BUFFER.”



**TUESDAY,
JANUARY
27**



ABUJA OFFICE CONDITIONS

- 35-DEGREE SAHARAN HEAT
- EVERY ENGINEER IN THE ROOM WAS WAITING FOR THE CLUNK
- THE SWITCH NEVER CLUNKED



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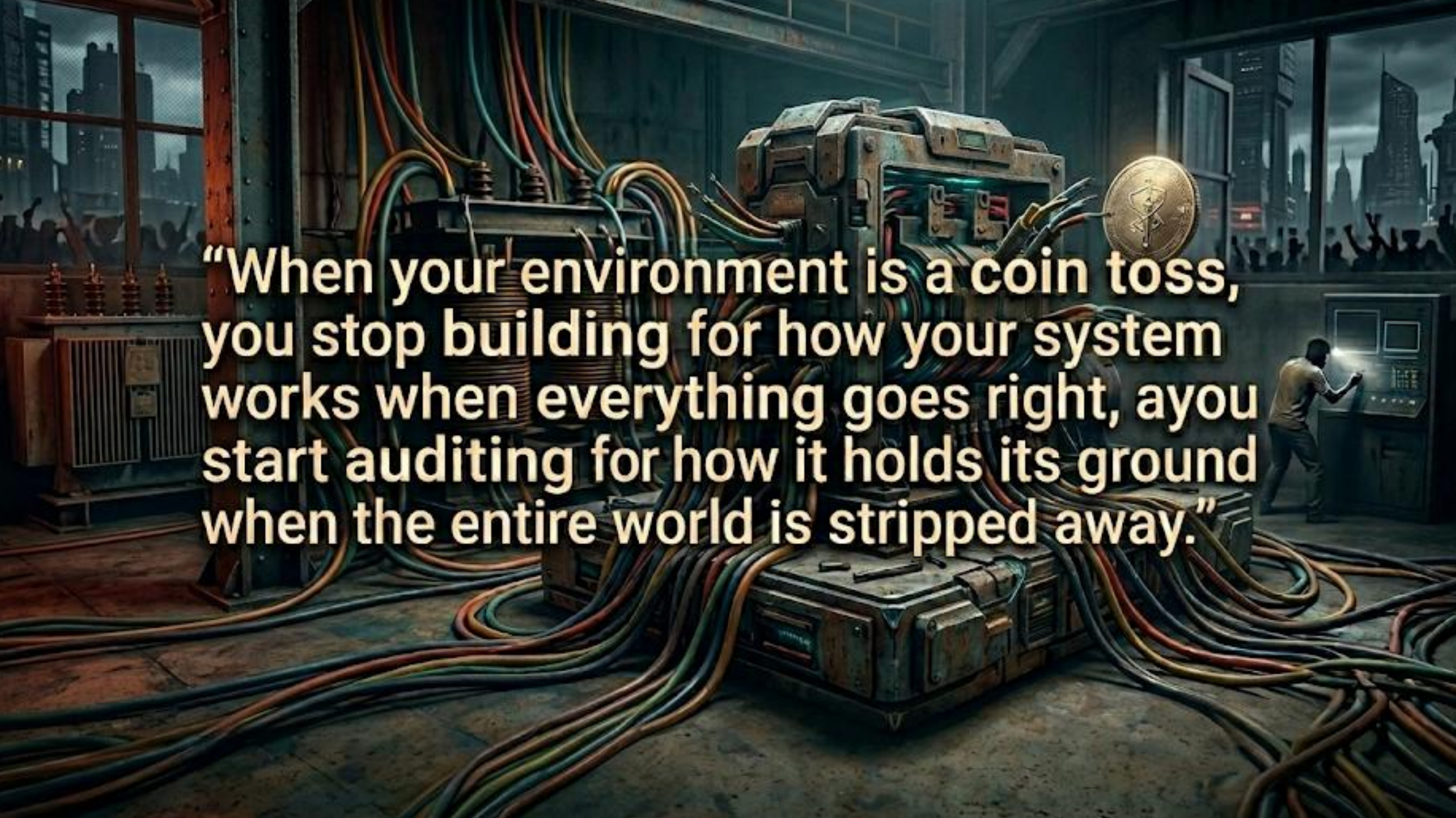


Observability

- PHYSICAL LAYER OBSERVABILITY: CHECKING FUEL LEVELS BY HAND.
- LUXURY DASHBOARDS VS. WOODEN STICKS IN RUSTED TANKS.
- THE DESPERATE REALITY OF SURVIVING THE NIGHT ON DIESEL.



Most teams would have folded. Mine didn't even pause.

A futuristic server room with a complex network of colorful cables (red, blue, green, orange) connected to various pieces of machinery and server racks. A large, glowing Bitcoin coin is suspended in the air above the central machinery. In the background, a person is seen interacting with a control panel. Large windows on the right side of the room offer a view of a city skyline at night. The overall atmosphere is dark and industrial, with blue and green lighting accents.

“When your environment is a coin toss, you stop building for how your system works when everything goes right, and you start auditing for how it holds its ground when the entire world is stripped away.”

WHAT SILICON VALLEY CALLS AN ADVANCED ARCHITECTURAL PATTERN, MY ENGINEERS JUST CALL **'SURVIVAL ARITHMETIC.'**



TAKEAWAY #1:

KILL THE HAPPY PATH BIAS

True resilience isn't simulated by a failure monkey in a pristine cloud environment. It is engineered by auditing your architecture for the day the physical layer completely disappears. If your system cannot survive a coin-flip environment, it is simply not production-ready.

Whether you're managing an office in a blackout or data packets on a wire, the fundamental law never changes:

When pressure builds, systems either decouple or they crack.



JUST A FEW DAYS AGO, THIS ENTIRE CITY SHOOK.

EMIRATES STADIUM

**ARSENAL WON THE
PREMIER LEAGUE**

**AFTER TWENTY-TWO
LONG YEARS OF WAITING,**

**AGONIZING CLOSE CALLS
AND BRUTAL MEMES...**



PREMIER LEAGUE
CHAMPIONS
2020-2021

ARSENAL W



ARSENAL FC: TACTICAL INNOVATION

ARSENAL FC



Declan Rice and Martin Zubimendi
as an **ASYNCHRONOUS**
HOLDING duo.

Synchronous Hope

The naive belief that every third-party API will answer the exact millisecond you demand it.



Synchronous Hope

The naive belief that every third-party API will answer the exact millisecond you demand it.



TRUE RESILIENCE: STATIC EXECUTION

KNOWN EXECUTION DURING 'DEAD BALL' SITUATIONS

ARSENAL: A RECORD 18 GOALS FROM CORNERS



NOT IMPROVISATION

THE ARSENAL
METHOD



EXECUTING PRE-MAPPED,
DETERMINISTIC SCRIPTS

OPERATIONAL EXCELLENCE: TRUE INFRASTRUCTURE RESILIENCE

TRANSFORMING INFRASTRUCTURE CRISES INTO PREDICTABLE SCRIPTS

MANUAL CHADS
(Step up with 'Hope')



**NO SSH-ing AT 3 AM
TO RETRY WEBHOOKS**

**THE AUTOMATED
METHOD**

AUTOMATED RECOVERY
(Versioned Scripts)



**TRIGGERING PRE-ENGINEERED
RECOVERY ROUTINES**

OPERATIONAL EXCELLENCE: TRUE INFRASTRUCTURE RESILIENCE

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**TRIGGERING PRE-ENGINEERED
RECOVERY ROUTINES**

TAKEAWAY #2:

Asynchronous by Default

Stop gambling on synchronous hope. Design a spine that never breaks, so that when the pressure builds, whether in North London or an Abuja data center, your system doesn't just survive. It wins.

SYSTEMS & SPIRIT: THE LIMIT OF DESIGN

- **TACTICAL SPACE**

A football squad handles tactical space.

- **DATA HANDLING**

A software architecture handles data.

- **THE DEEPEST TRUTH**

But neither of them can handle the human spirit under pressure.

you can build the most fault-tolerant asynchronous outbox in the world,
but if your people break, the system stays down.

ARSENAL'S PHYSICAL DOMINANCE: 2024 VS 2023

- **ELITE ENDURANCE**

Outran 35 of their 37 opponents this season.

- **EUROPEAN LEADERS**

Covered more total ground than any other team in Europe.

- **SUSTAINABLE SUCCESS**

Did not burn out the same eleven players. Avoided the exhaustion of 2023.

Look at **Arsenal's physical data**: they **outran 35 of their 37 opponents** and **covered more ground than anyone else** in Europe. But they didn't do it by red-lining the **same eleven players** until they **collapsed**. That was their **failure mode in 2023**.



PSYCHOLOGICAL SAFETY



**No one person is smarter
than the system.**



"Crew Resource Management: Absorbing a zero-probability failure collectively."



Heroes Don't Scale.

HEROES DO NOT SCALE

- **THE HERO ENGINEER**

In Nigeria, it is incredibly easy to lionize the 'Hero Engineer'—the person who stays awake for 36 hours straight, manually re-driving failed transactions.

- **THE LONE SUPERSTAR**

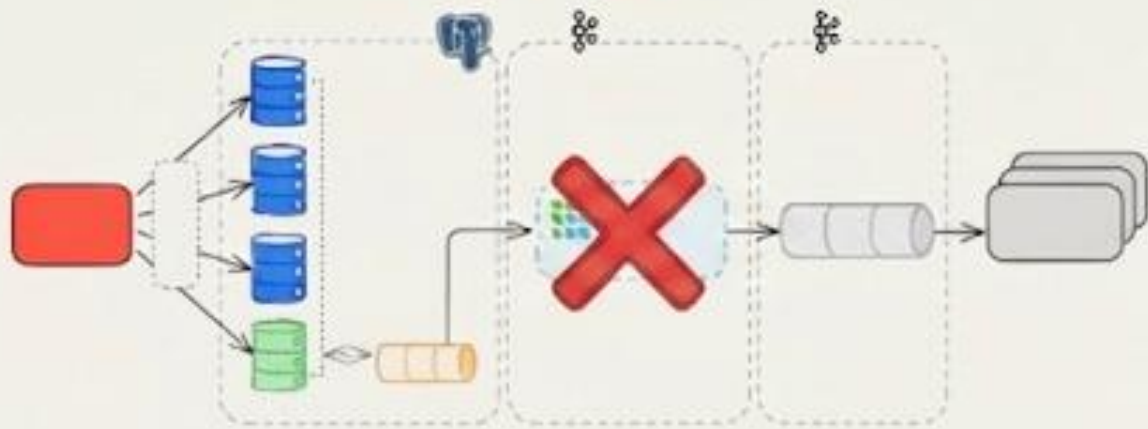
In football, it's easy to look for a lone superstar to save the match.

- **ARCHITECTURAL FAILURE**

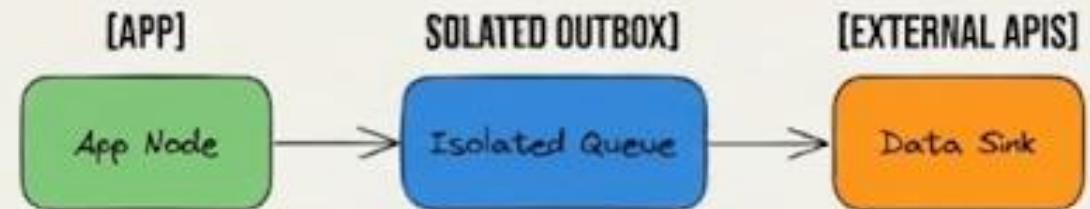
But heroics are a trailing indicator of architectural failure.

you can lionize the hero, but if your systems are designed to require heroics, then you are a long way from sustainable scale.

WHO BROKE IT?



WHY DID THE SYSTEM ALLOW AN EXHAUSTED HUMAN TO MAKE THIS CHOICE?



“WE PRACTICE FORWARD ACCOUNTABILITY. WE DON’T NEED PUNISHMENT OR PERFORMANCE PLANS TO INTERNALIZE A LESSON; THE ACT OF TELLING THE STORY HONESTLY AND OWNING THE ACCOUNT IS ALL THE ACCOUNTABILITY A WELL-INTENTIONED TEAM NEEDS.”



We celebrated the fact that the architecture worked so quietly that no one had to be a hero.

TAKEAWAY #3:

Trade Heroes for Systems.

Heroism is a trailing indicator of architectural failure.
Protect your human architecture from outage fatigue
by shifting your culture from individual blame to
systemic absorption.

THREE DEEP LESSONS FOR SYSTEM RESILIENCE

FROM THE STREETS OF ABUJA:
FIRST LESSON - KILL THE HAPPY PATH BIAS



Because your environment is a coin toss.
Plan for failure, not perfection.

FROM ARTETA'S NORTH LONDON TEAM:
SECOND LESSON - ASYNCHRONOUS BY DEFAULT



Building structural spillway basins to protect
our core uptime. Decentralize and buffer.

FROM THE COCKPIT OF FLIGHT 232:
THIRD LESSON - TRADE HEROES FOR SYSTEMS



Because heroes do not scale, but psychological safety does.
Decentralize and institutionalize knowledge.



NEPRA

The NEPA Framework (Takeaways)

N- Natural Chaos

E- Ever-ready Asynchronicity

P- Psychological Safety

A- Always "We"

NEPA!

Building a great team isn't about finding people who can survive a crisis. It's about building a culture where the crisis is just another Tuesday. Real creativity lies in the messy parts. If you value the team over the "hero," you'll bring the plane home every single time.





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THANK
YOU

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