

7 Pitfalls of Cloud Architecture

What they don't put in the AWS Quick Start guides



Craig Bensemann

The Problem

**Cloud promises scale and
flexibility**

**What we get: surprise bills,
black-box failures**



CLOUD BY CHECKBOX

Using services to satisfy a
contract, not a design



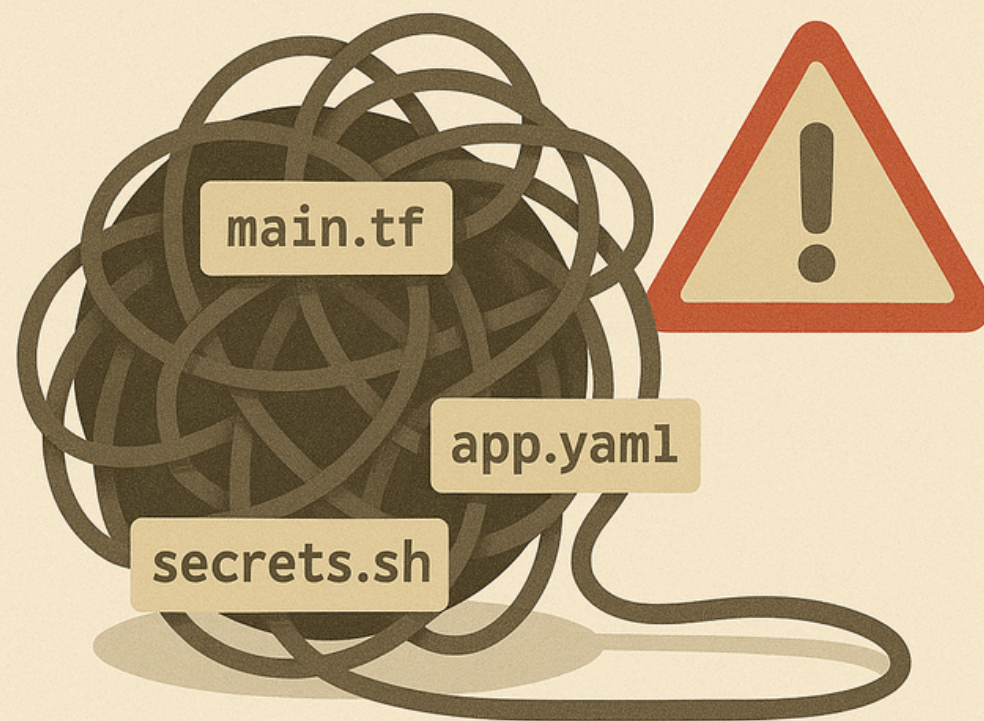
CloudWatch Is Not Observability

- Expensive
- Slow
- Hard to search



Congratulations, your logs
are technically there.

Infrastructure Entropy



Touch it and die.

01

Infrastructure and application code
mixed deployments

02

Manual Database migrations

03

Configuration/Deployment by Human

04

Deployments that aren't Idempotent

Monitoring as an afterthought

Metrics don't matter if no one sees them

- Prometheus added late, barely hooked in
- Dashboards ignored until things burn
- Alerts are noise without ownership



We have graphs.
We just don't look at them.

The Myth of Managed

Managed services \neq fewer people

- You move to the cloud to save ops
- Now you need an ECS specialist, a Lambda whisperer, and a Kafka babysitter
- Abstraction becomes overhead



**Managed means
someone else installs it.
You still fix the leaks.**

Cost Without Value



It's not the cost—
it's the waste.

01

Using the wrong service for your task

02

Storing all the things...forever

03

Using managed services

04

Lift and Shift mentality

Serverless, Not Simplified

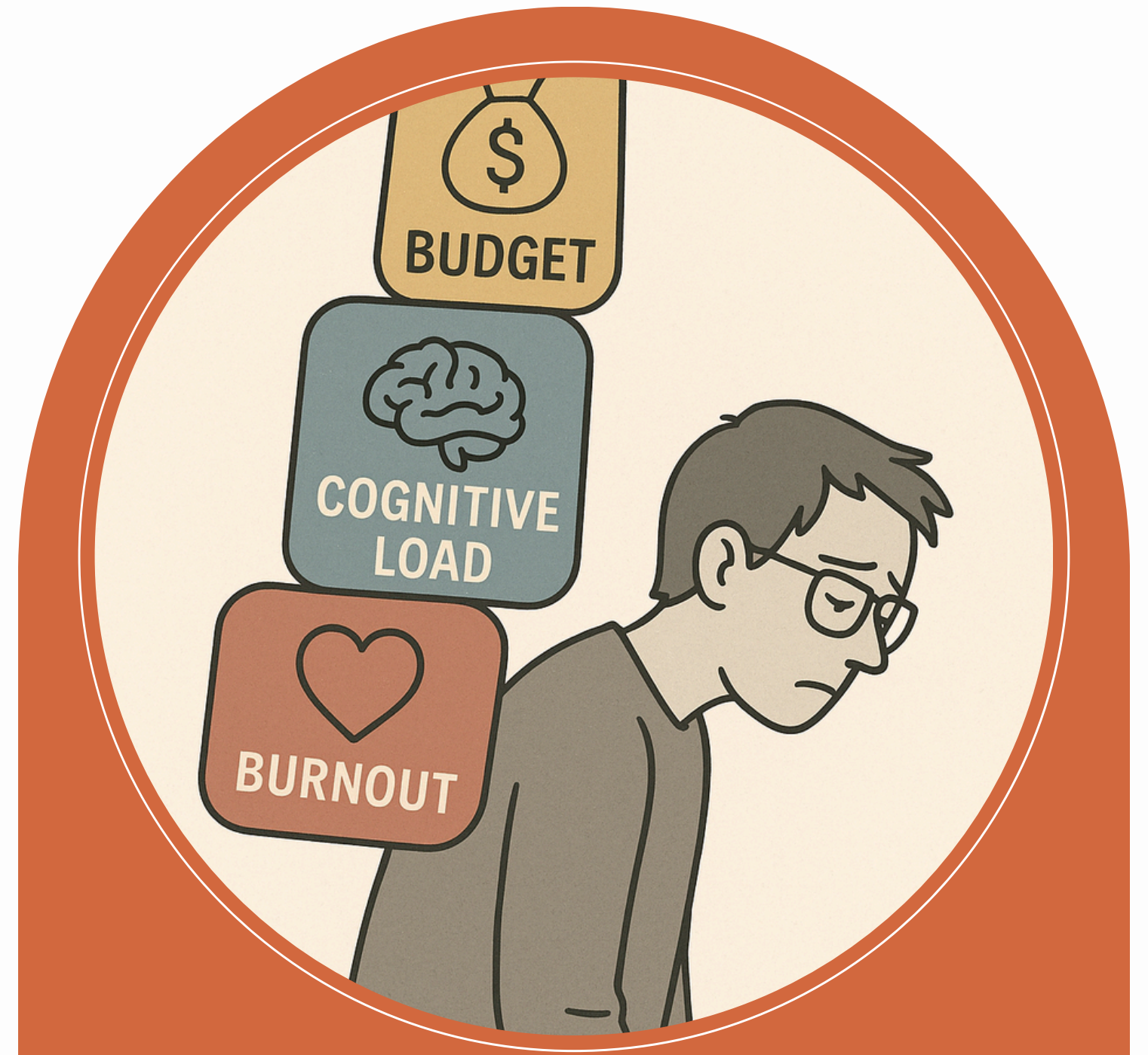


Lambda

- **Arbitrary limits**
- **Hard to reason about data flow**
- **Limited debugging**

What these pitfalls have in common

- 💰 Budget: Infra, data, tool sprawl
- 🧠 Mental load: Debugging, fear of change
- ❤️ Morale: Hero culture, burnout
- 🧭 Clarity: Lost in translation between teams and services



Patterns for Success



Flow



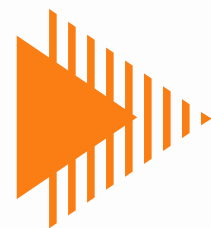
Logs



GitOps



Infrastructure

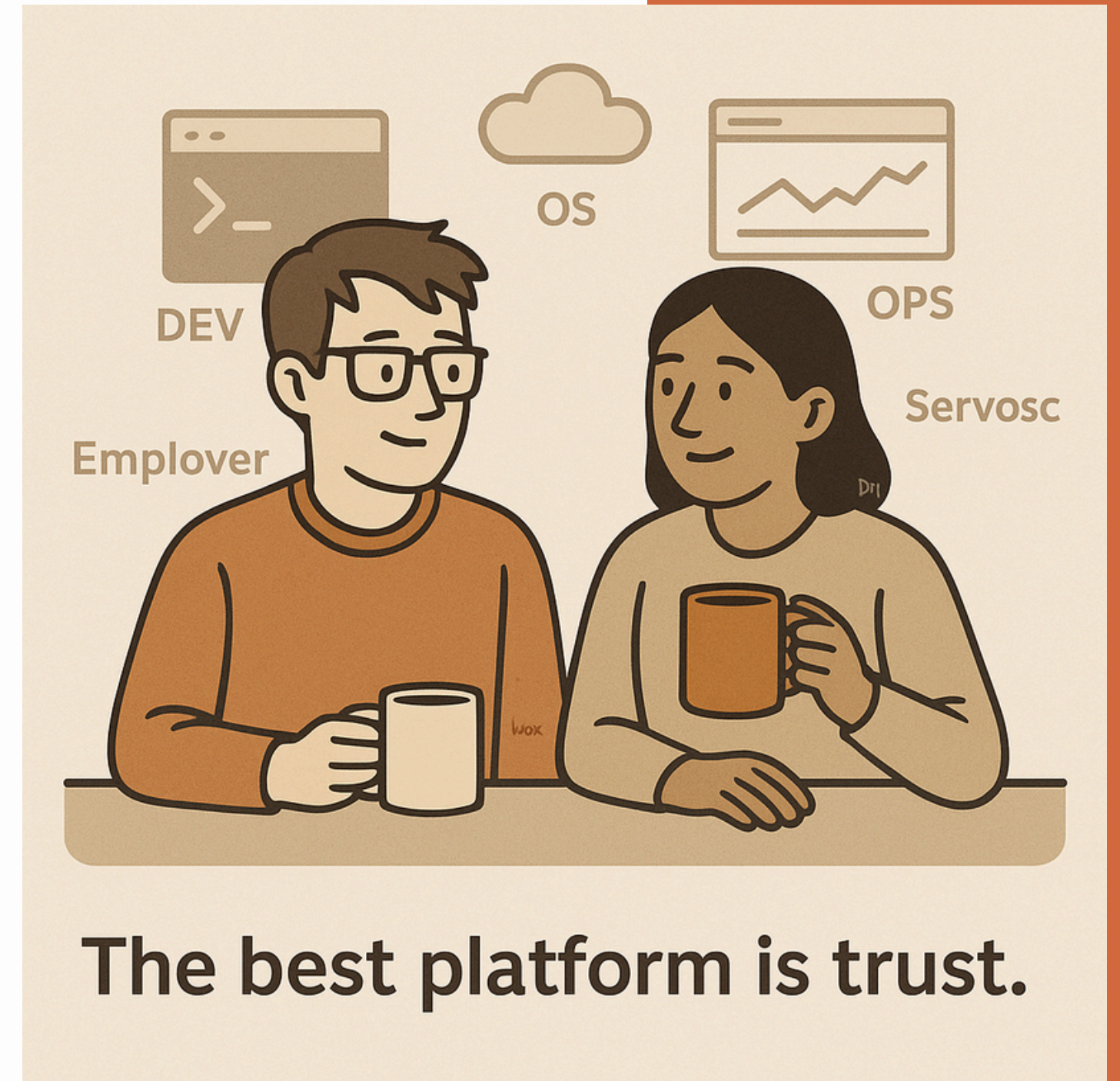


Cost

Bonus: Respect the Humans

“Your team is your platform.”

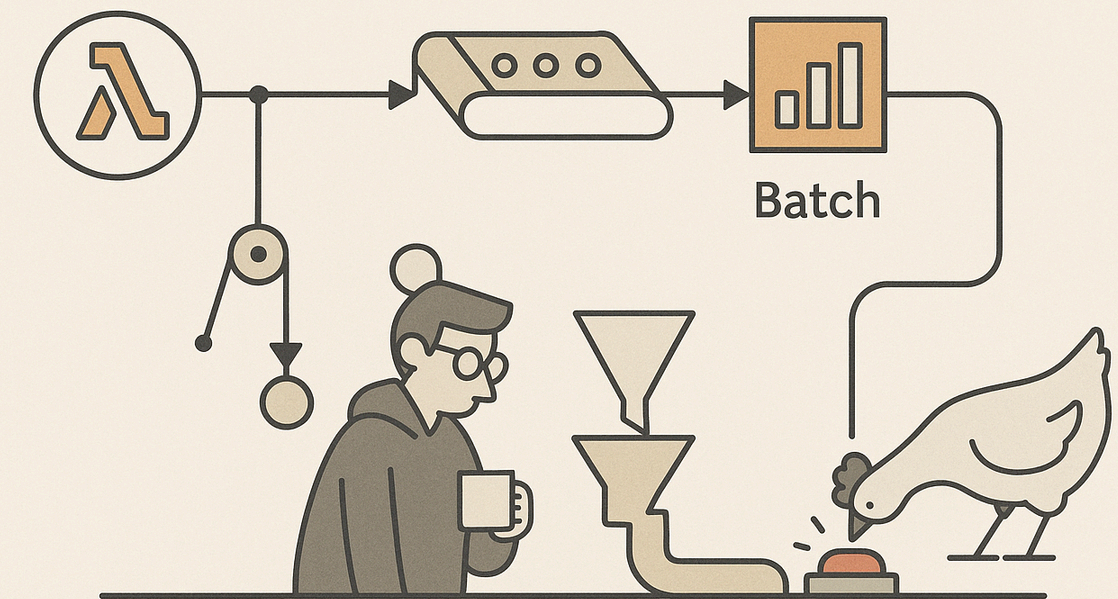
- Clarity reduces stress
- Bad systems create blame loops
- Most real ops wins come from people, not services



CLOSING THOUGHT

"The best cloud system is the one you can explain at 2AM."

- **Make intentional choices**
- **Design for observability**
- **Value clarity over cleverness**
- **And trust your team**



What could possibly go wrong?

Questions & Confessions



CONNECT

thecynical.dev/slides

craig@thecynical.dev

 [craigbensemann](#)

