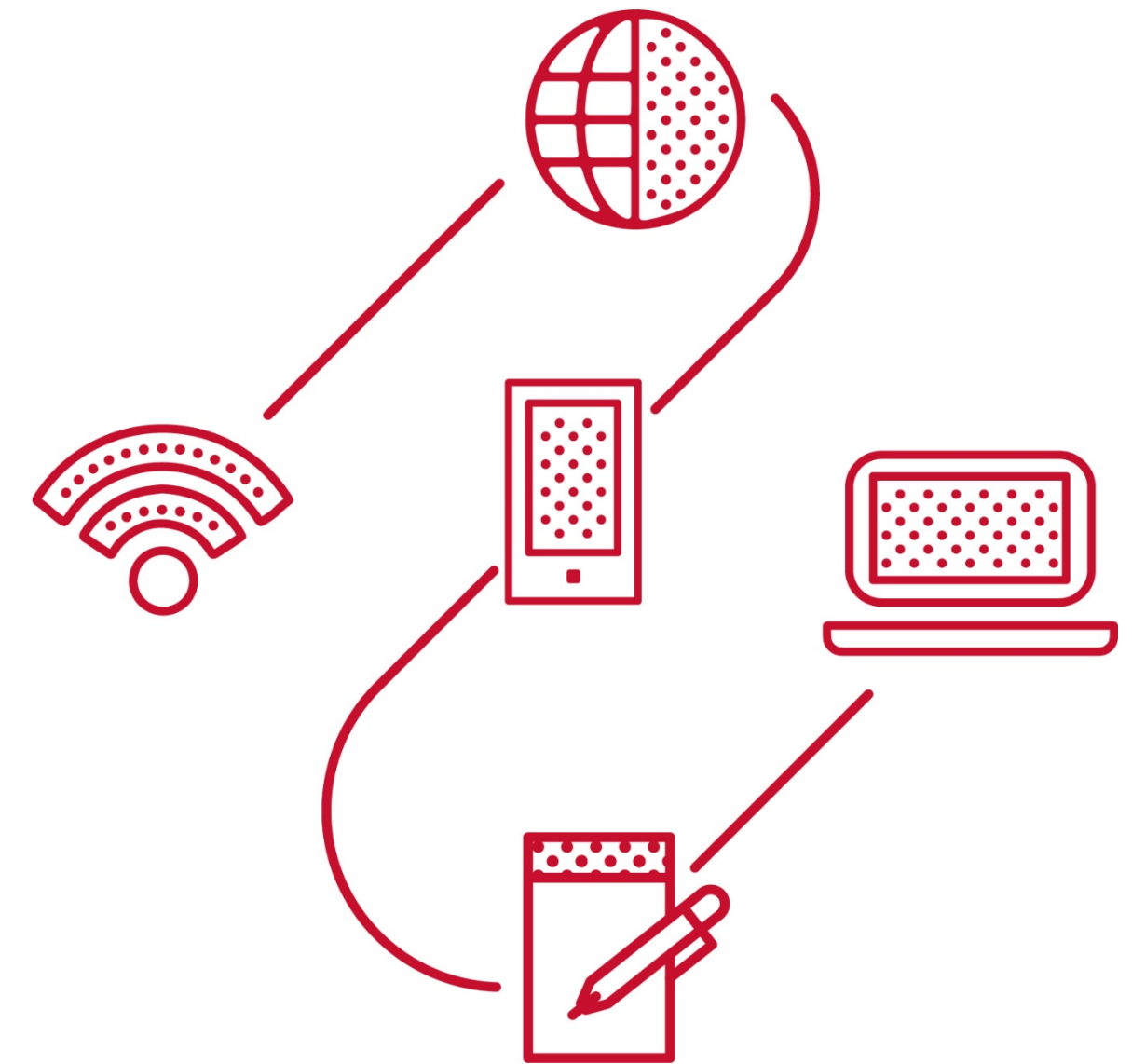


Monitoring Kubernetes at scale

**Reliably making reliability...
reliable**



Agenda:

Who am I?

Who are you?

Why you need an on-call process

Monitoring and Alerting tips for Kubernetes

Why I recommend DataDog for k8s monitoring

Q+A

Who am I?

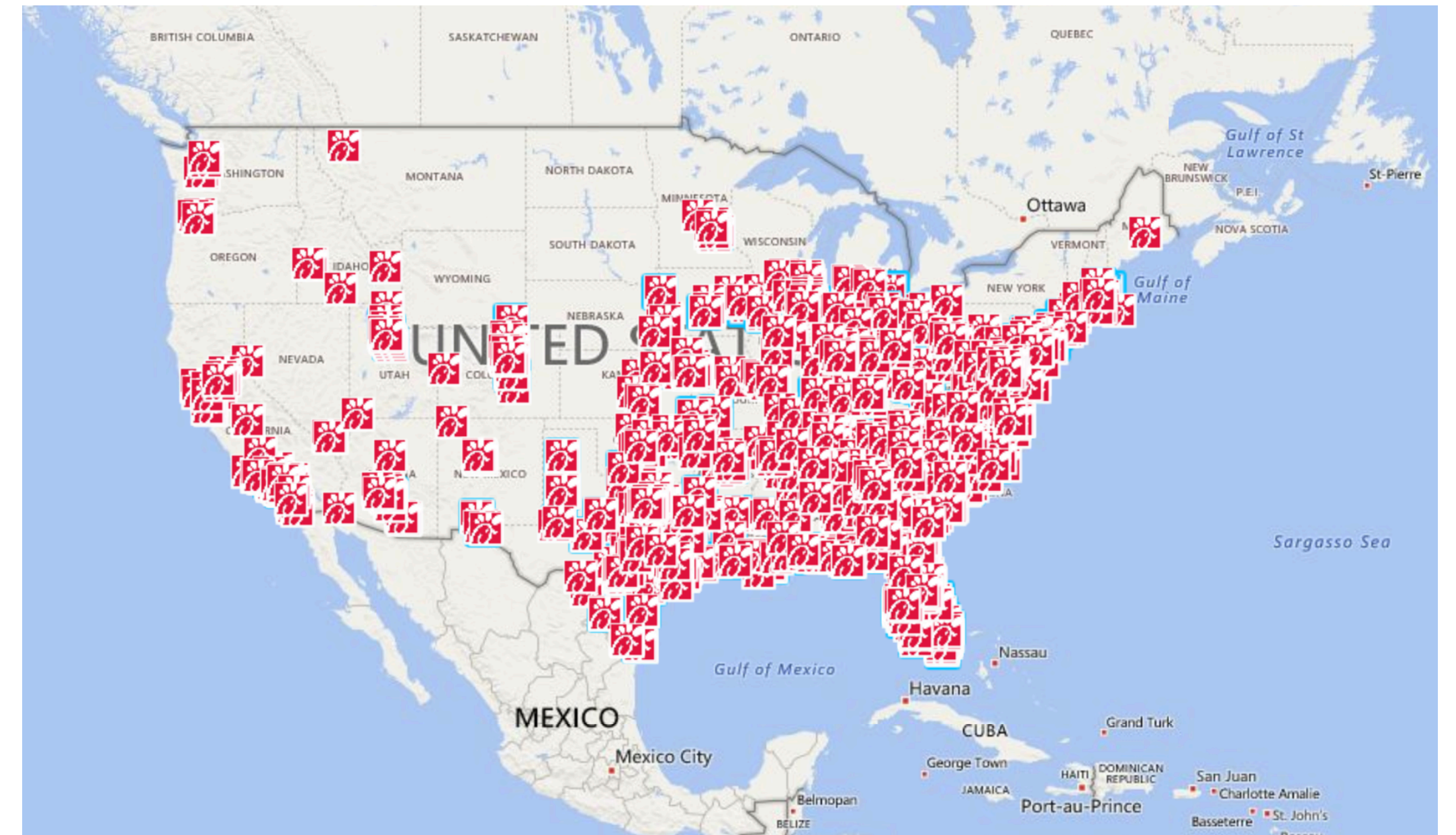
I really really really love animations !!!!

Senior SRE at CFA

Currently rolling out 2k k8s clusters

Not a DataDog customer!

- Wish I was... will be soon
- Aaron warned me not to roll my own
- Used DataDog in previous environments



Intel: Quadcore processor, 8 GB RAM, SSD

Who are you?

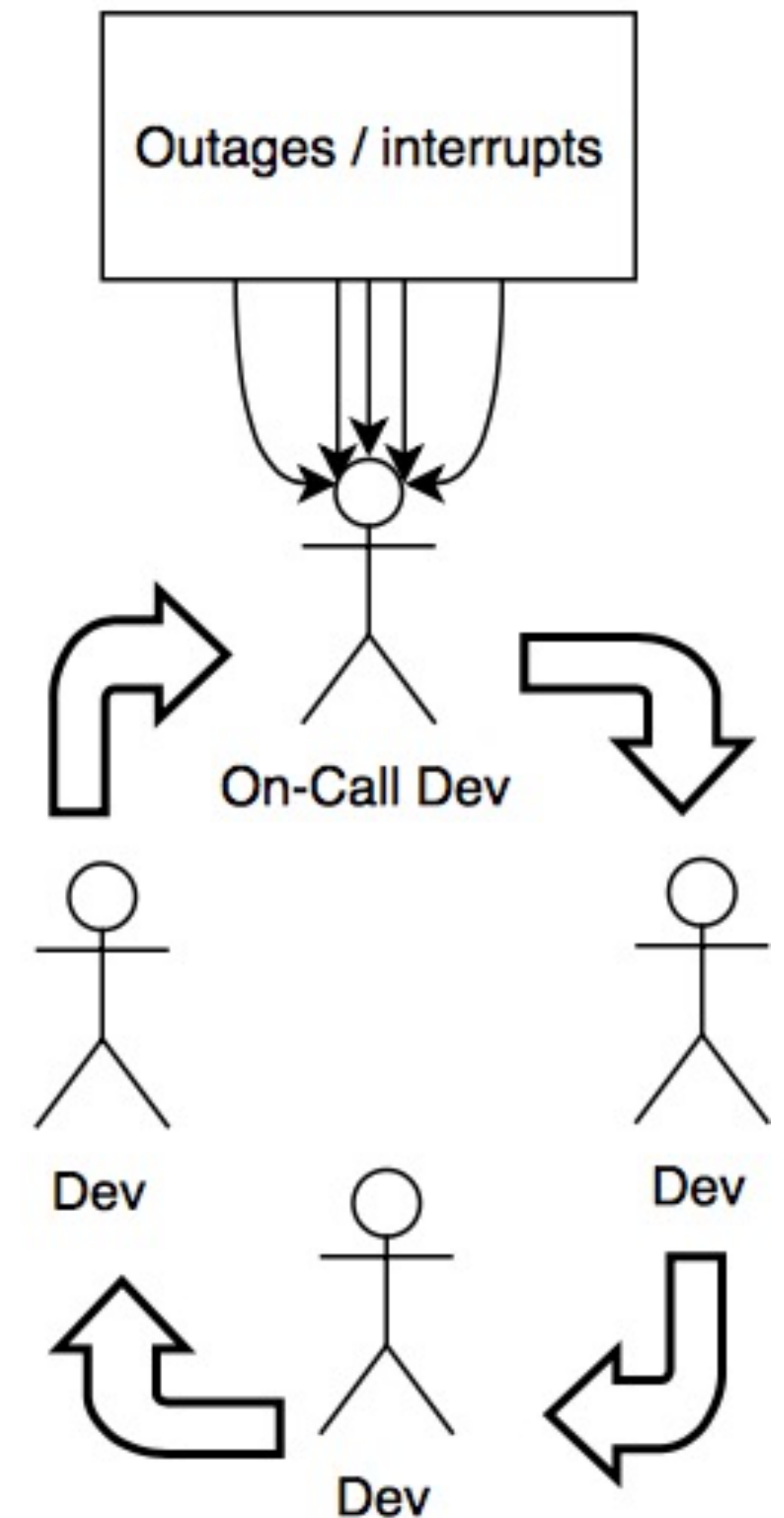
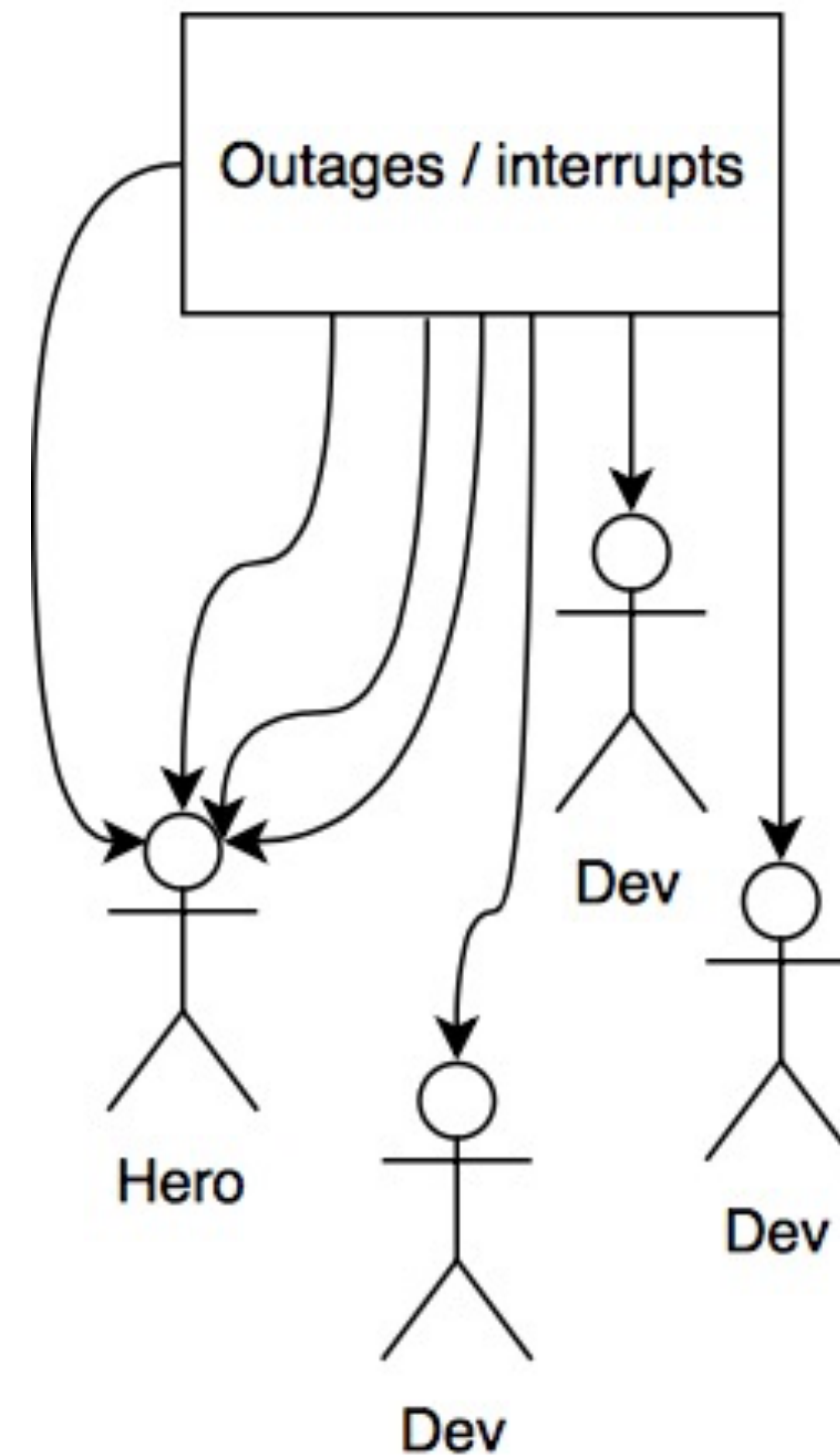
Raise your hand if...

- You are (or have) SRE's or DevOps in your organization
- You currently run k8s in production
- You have an on-call process

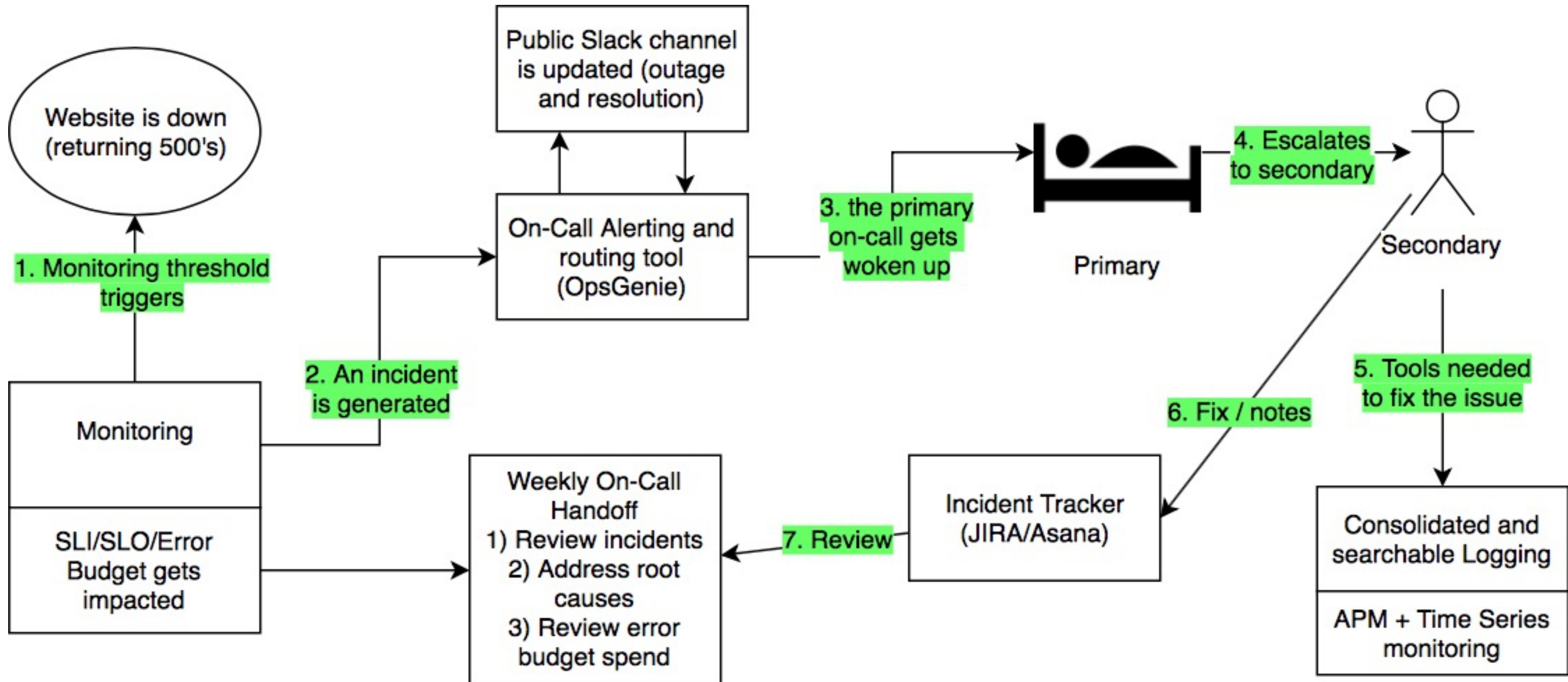
Why you need an on-call process

- Off-call engineers can focus
- Prevents your team from drowning under support tasks
- Cross-trains new or specialized engineers

Example: RIoT outage pre and post on-call



CFA On-Call process



Monitoring Philosophy

Read “My Philosophy on Alerting” - 7 page PDF by Rob Ewaschuk

Alerts should be urgent, important, actionable, and real... and should require intelligence to resolve

Noisy alerts are worse than under-monitoring

Monitor symptoms, not systems

- example: monitor a page for % of customer impacting errors which will catch DB failures, as opposed to monitoring your DB directly.
- Monitoring symptoms DOES make a bigger haystack...

Time Series + APM's tools like Datadog are built for haystack searching!

Monitoring and Alerting tips for Kubernetes

Don't get creative with Kubernetes – read their docs!

- example: k8s readiness and liveness probes – use them!

Get familiar with the Kubernetes API! You'll need it.

Make sure that your k8s api-server knows what you know (pod state)

Lean on your hosted K8s provider for core cluster state/status

Monitor (low priority?) your deployments

Etc'd state matters!

Resource constraints, set em'!

Log. Log. Log.

Why I recommend DataDog for k8s monitoring

What I don't like:

Their logo

ML is not as flexible as we'd like (daylight savings)

Pricing model for our bizarre use case

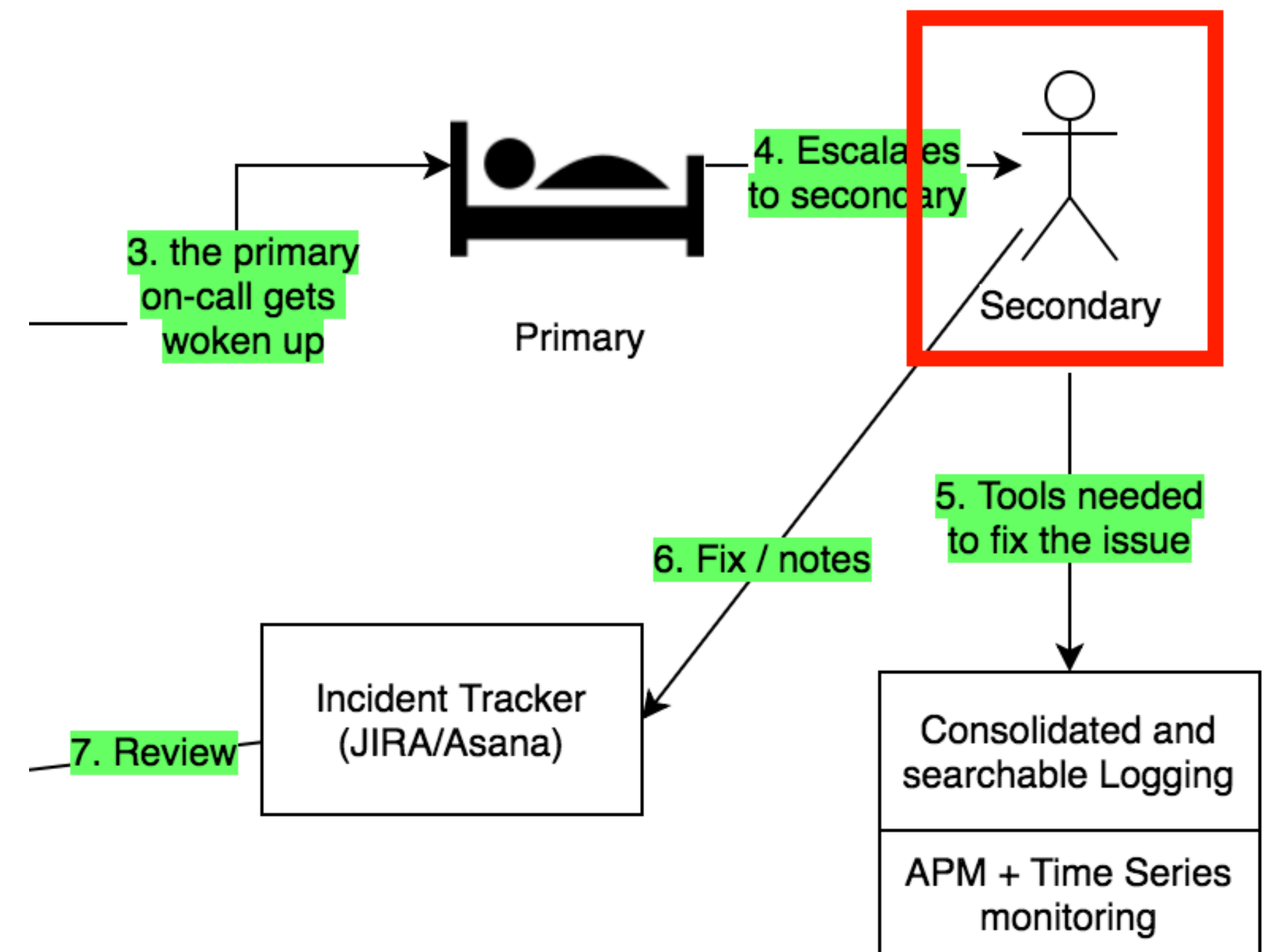
On-Call/monitoring is all about letting THIS person sleep as much as possible

Lower MTTR when everything you need is right now

Insanely easy agent setup

Useful, out of the box k8s dashboards

Crazy easy monitoring configuration



Questions

