

Deploying quickly and reliably

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Uber SRE
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UBER



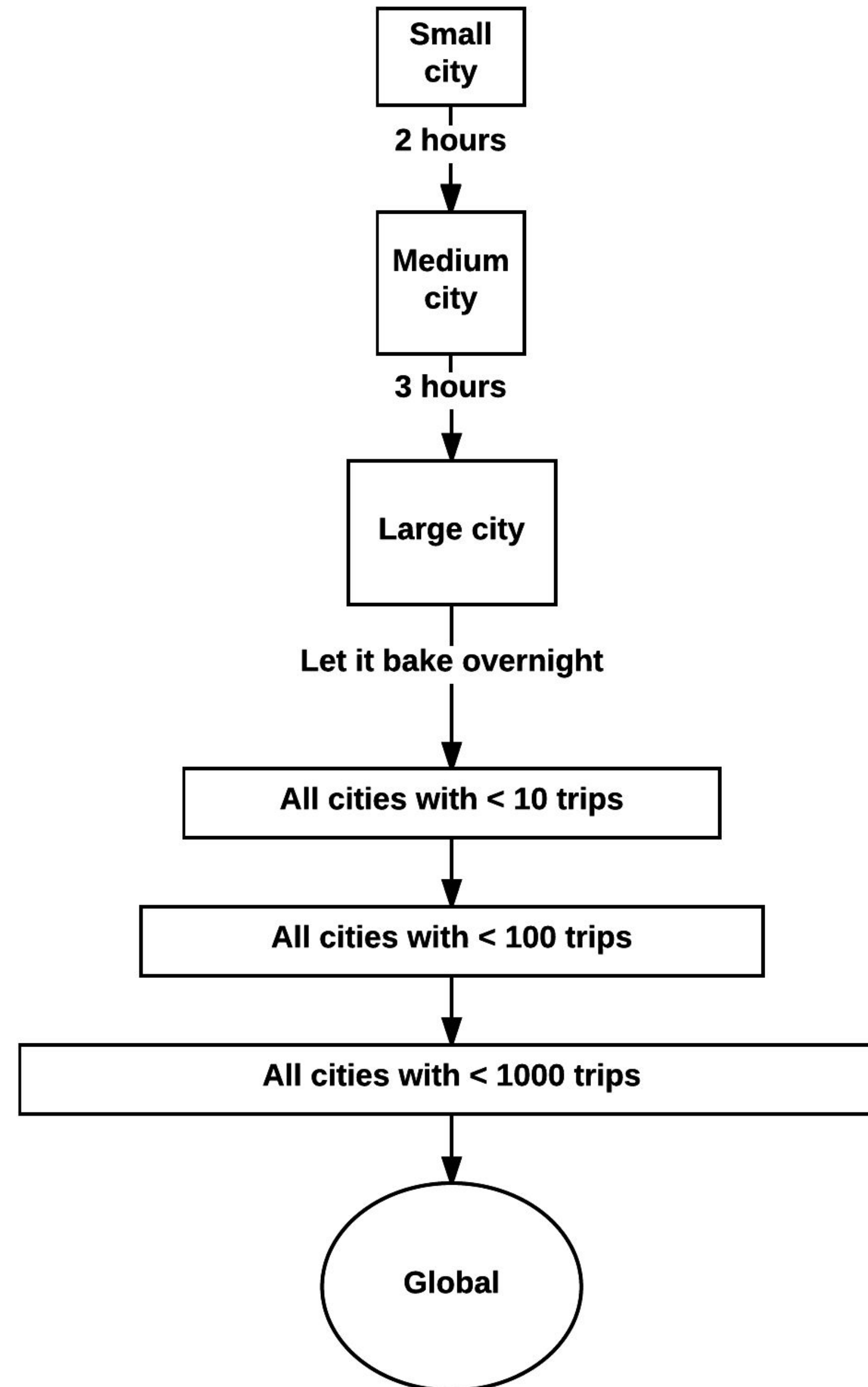
Mission

**Transportation as reliable as
running water, everywhere,
for everyone.**

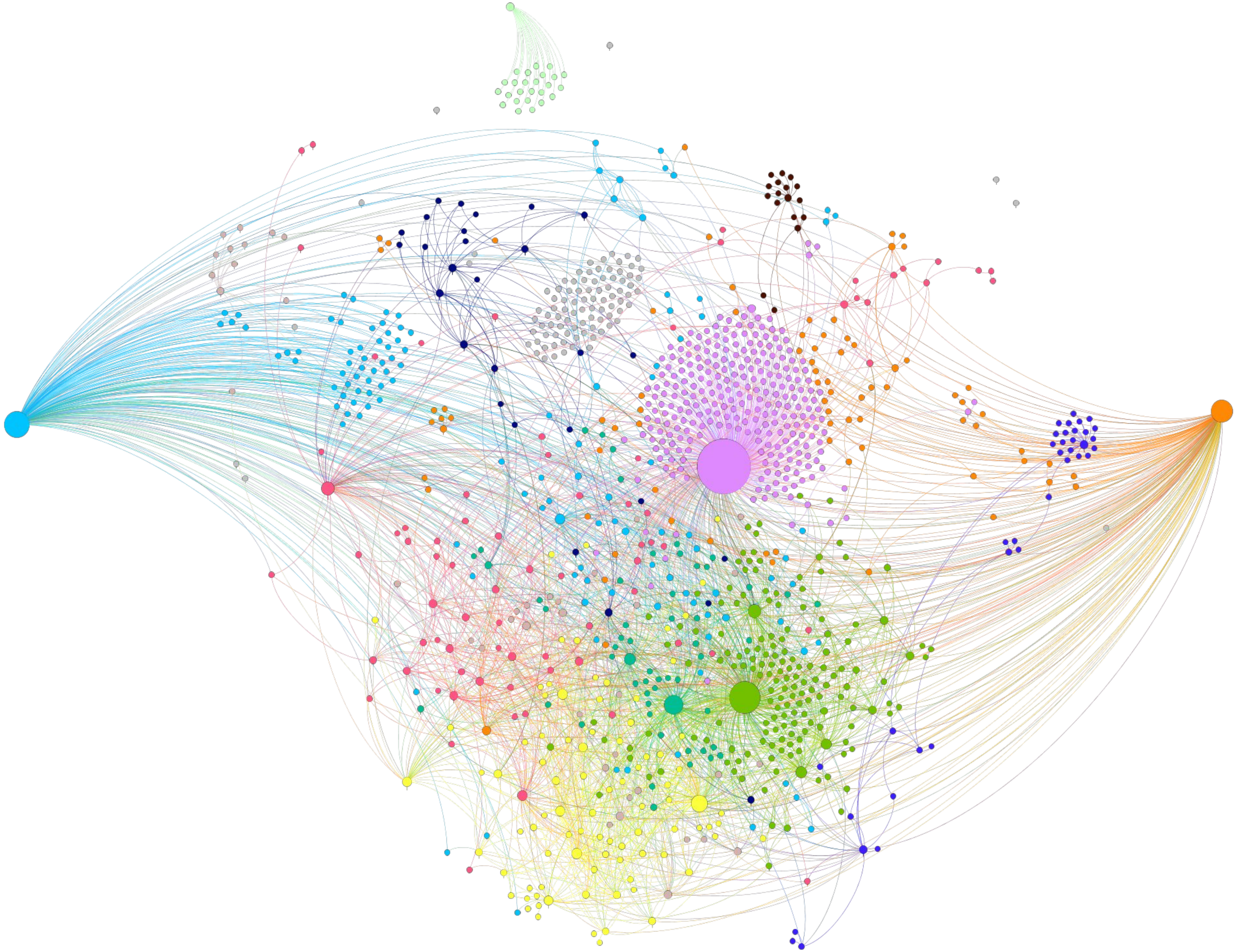
How many times does Uber deploy
per day?

Good question...

Past: Monoliths

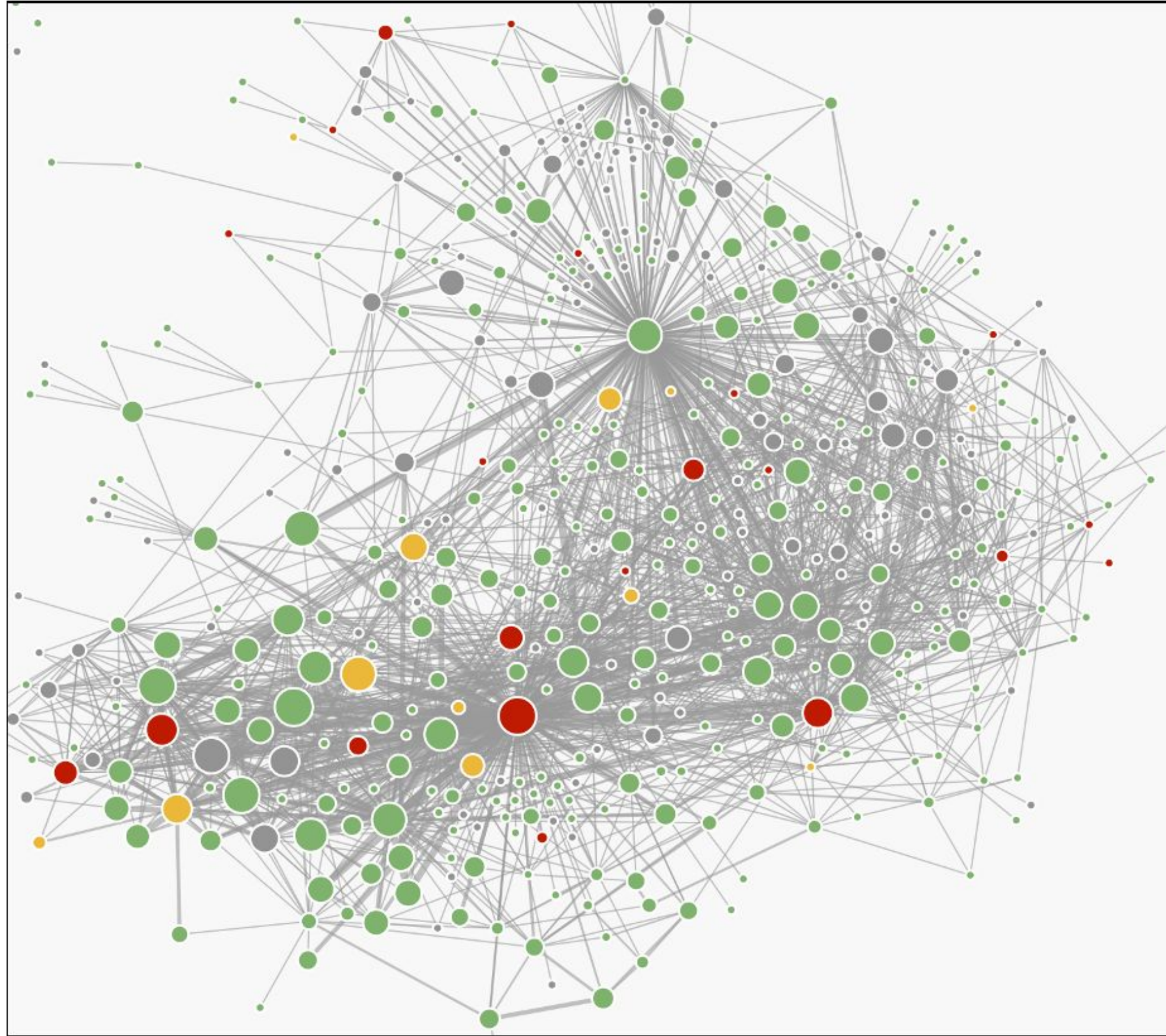


Uber today: Thousands of Microservices

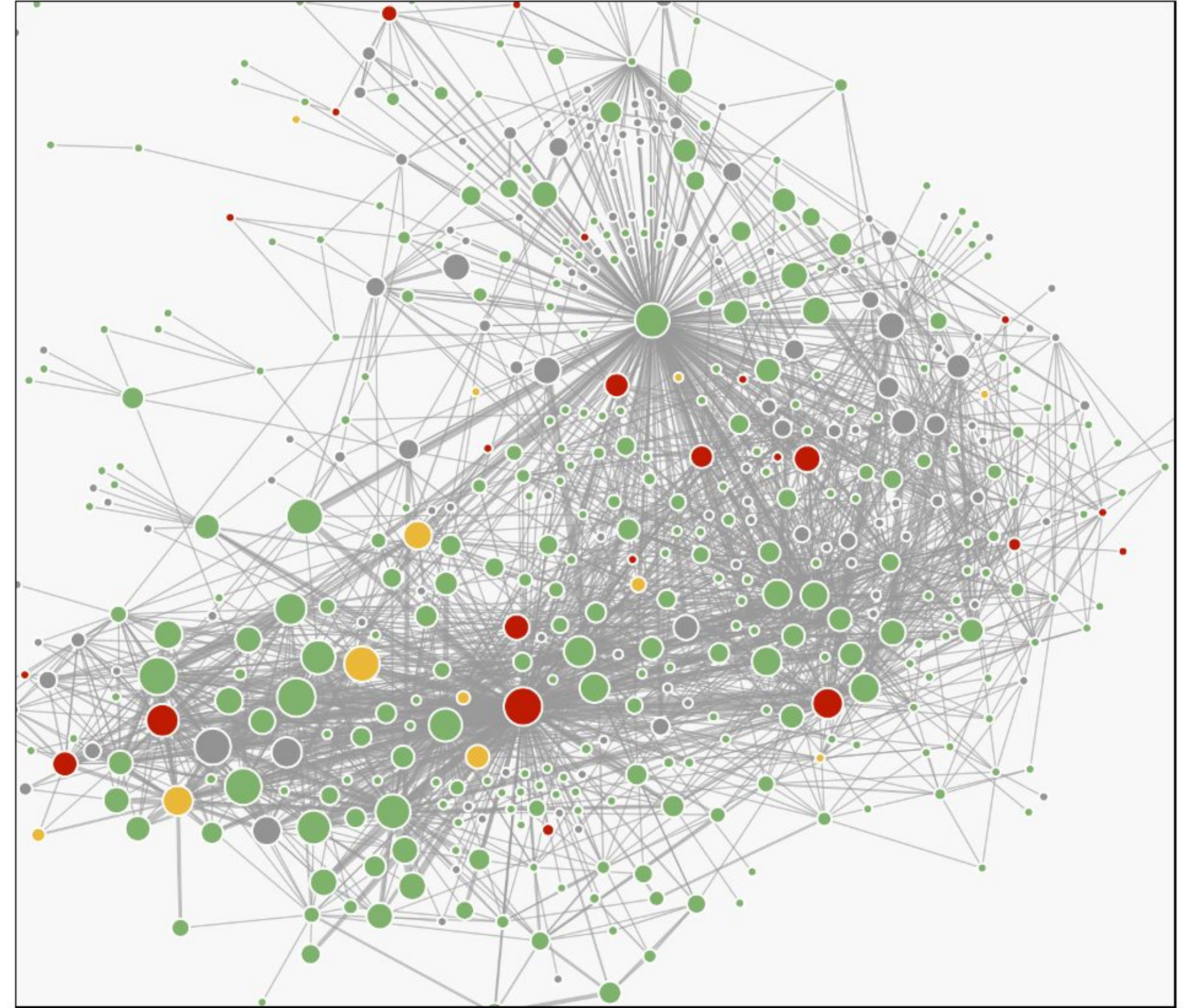


Region 1

Zone 1

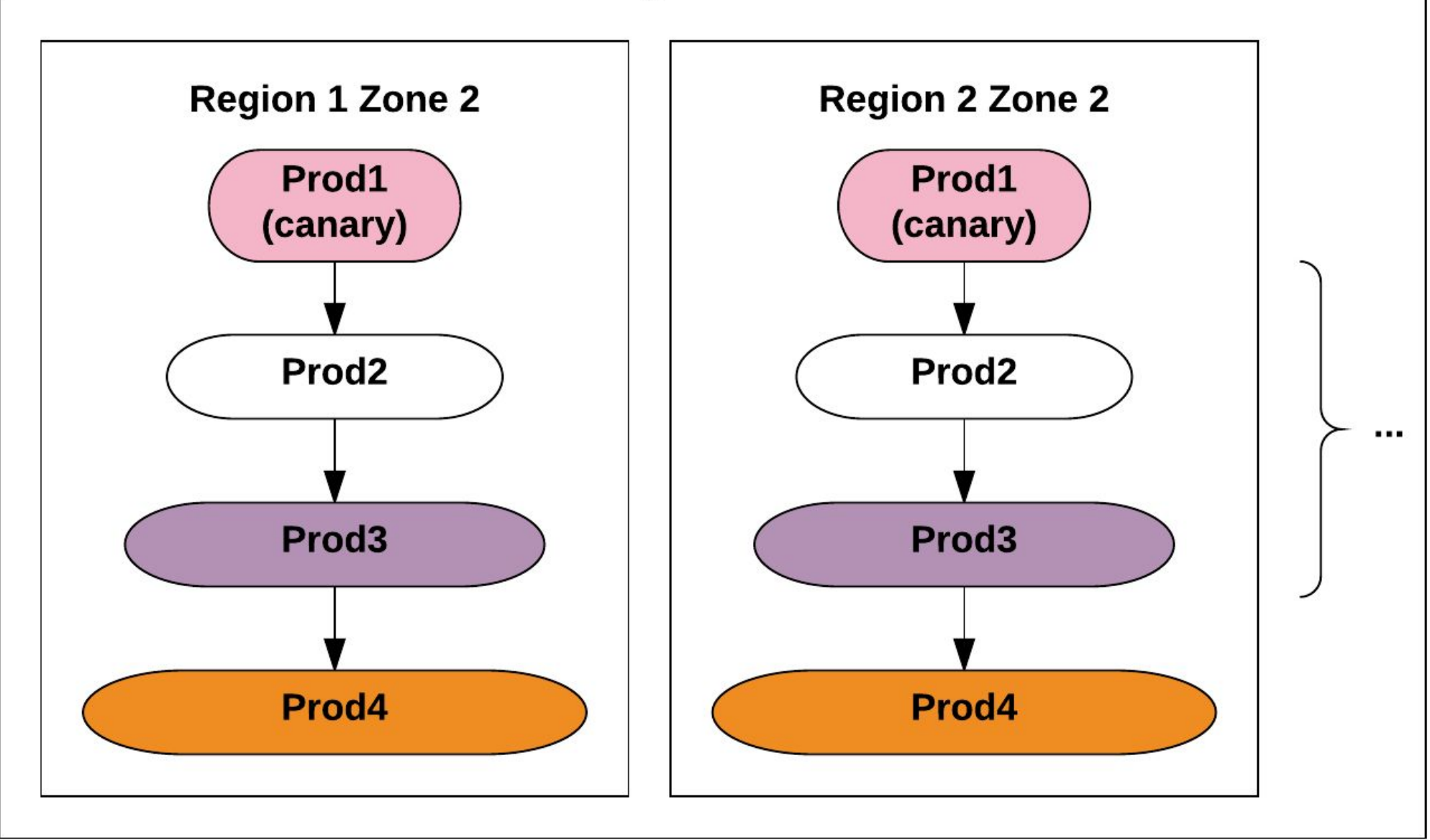
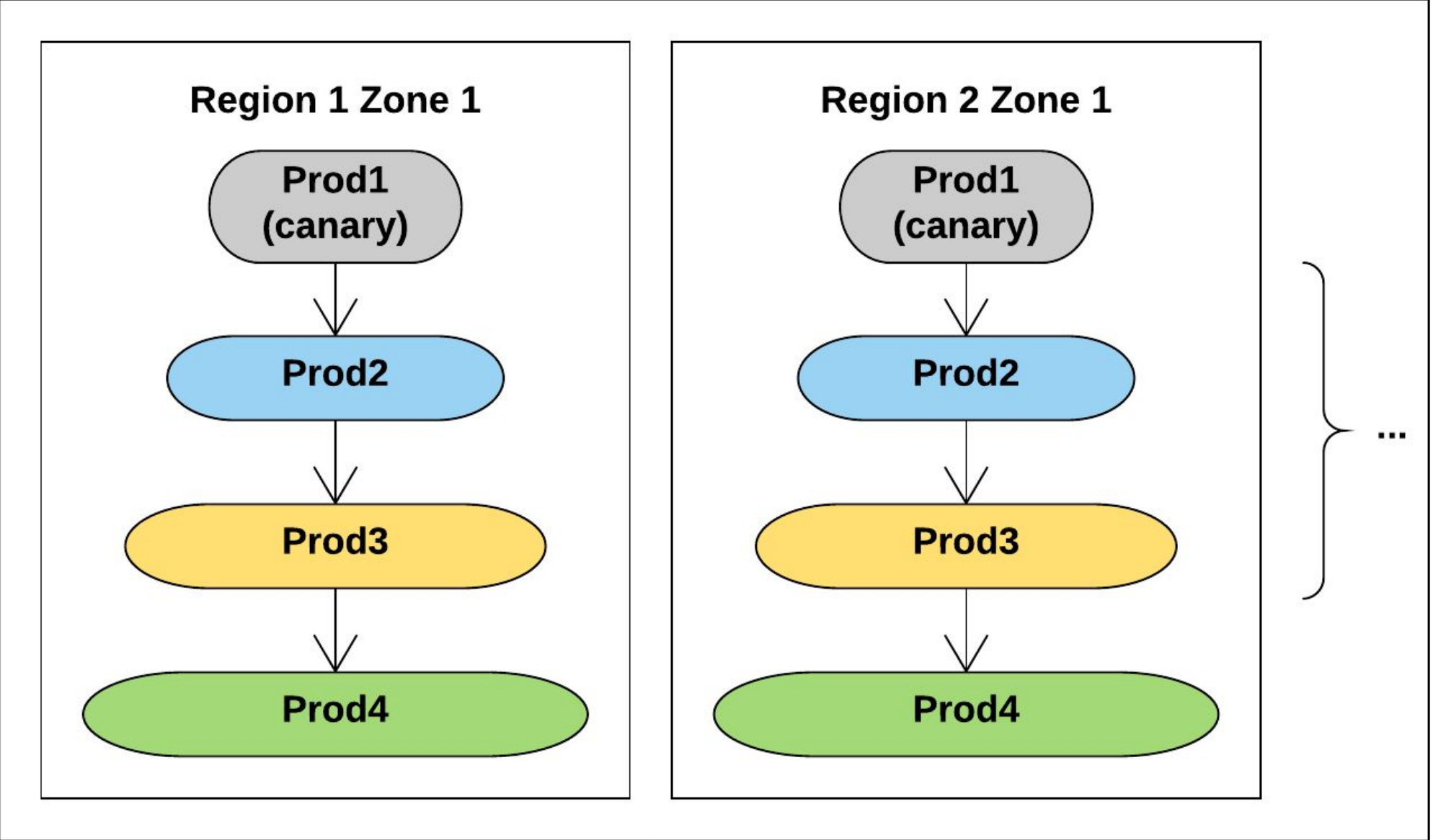


Zone 2



Deploying without guardrails





Workflows for common cases

✓ Standard deploy of [build-20170309-1712-default-hotfix](#) succeeded

2017-03-11 18:30 2017-03-11 22:19 3:48:30

Input:
Existing build [sjc1-produ-0000007465](#)

Scope:
Deployments:
[prod1](#)
[prod2](#)
[prod3](#)
[prod4](#)

Workflow ID:
[sjc1.b465db58-889e-40b9-a396-cf3bf3290b9c](#)

Messages:
20:12:50 Upgrade was accepted after prod1 in dca1

Progress:

✓ Build
Build of [build-20170309-1712-default-hotfix](#) with ID [sjc1-produ-0000007465](#) completed in 0:01

✓ Rollout

| | | | | | | | |
|-------|----|-------|-----|-------|-----|-------|-----|
| prod1 | 5% | prod2 | 15% | prod3 | 30% | prod4 | 50% |
| ✓ | | ✓ | | ✓ | | ✓ | |
| prod1 | 5% | prod2 | 15% | prod3 | 30% | prod4 | 50% |
| ✓ | | ✓ | | ✓ | | ✓ | |

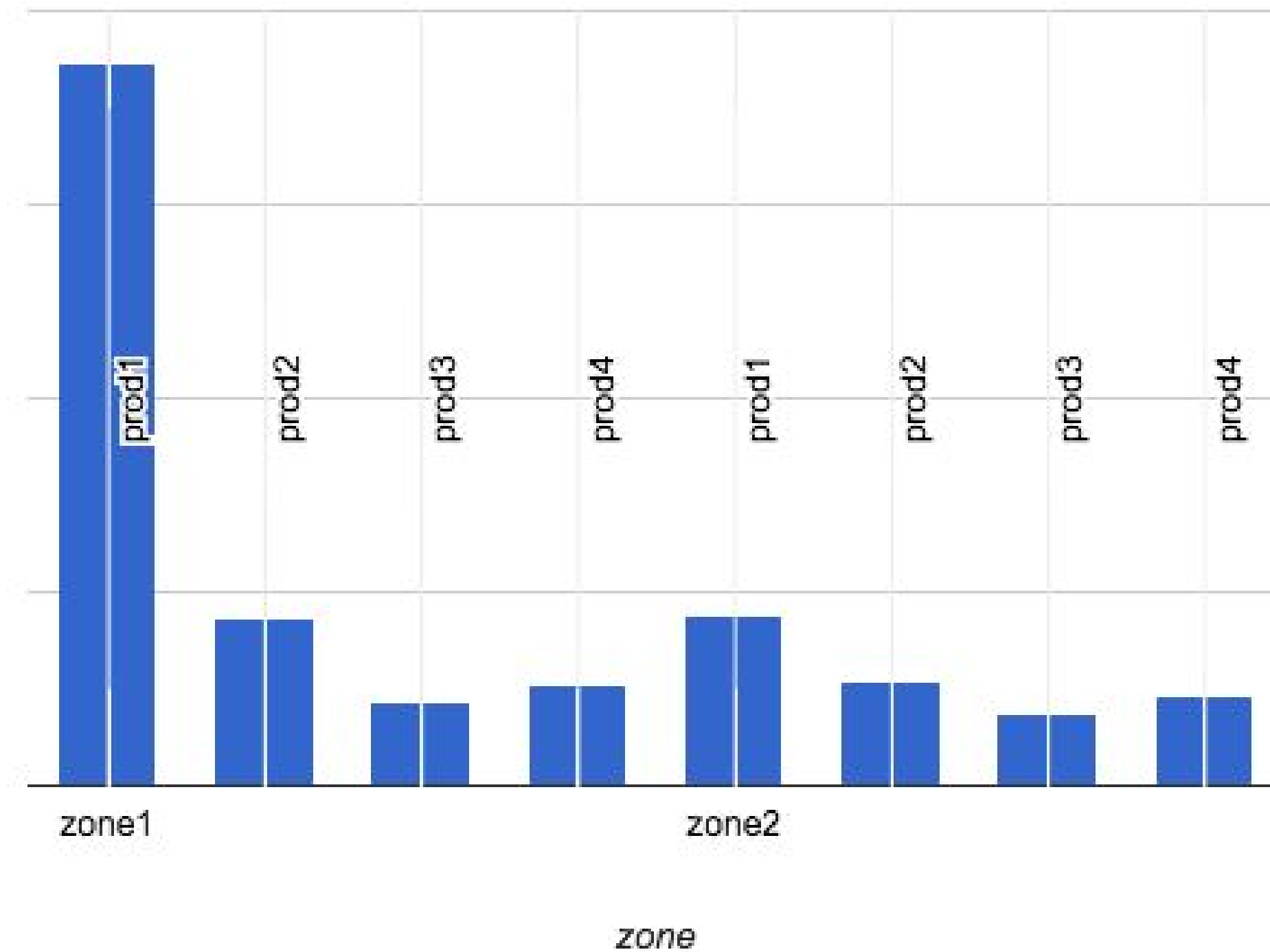
Actions:

Rollback Acknowledge

Results

- Lower TTM for incidents
- Incidents reduced in scope
- Less time spent in incident reviews

Deployment rollbacks



Takeaways

Fast detection isn't always easy

No one likes slowing down

Plan for reliability at the start

Policies driven by metrics are easy to promote

The right amount of velocity to trade for reliability is a moving target

Reinforce failure domains everywhere

Thanks for listening!

Questions?