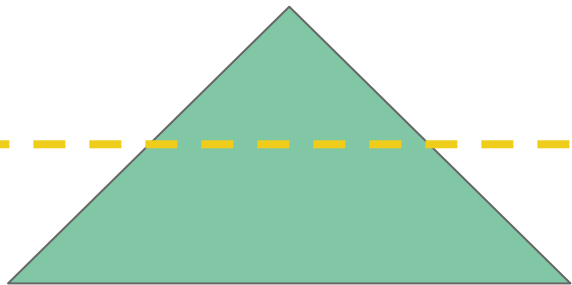


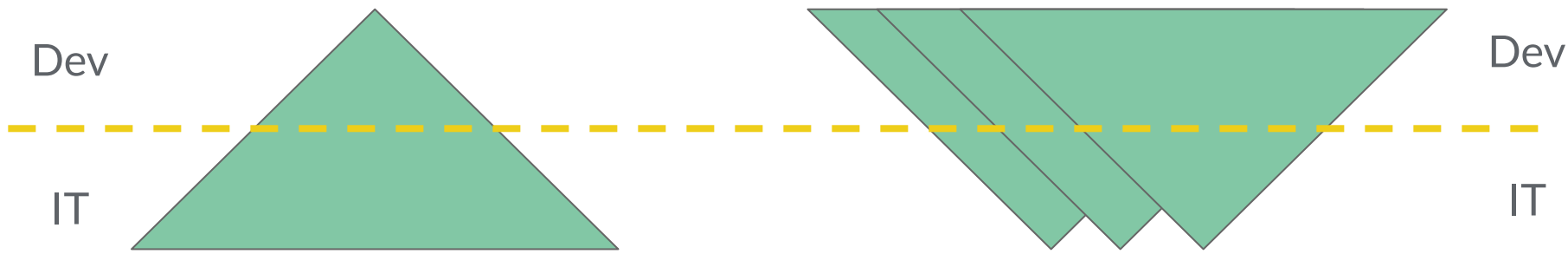
Dev

IT



Worked great, for
a long time

Common
mental model



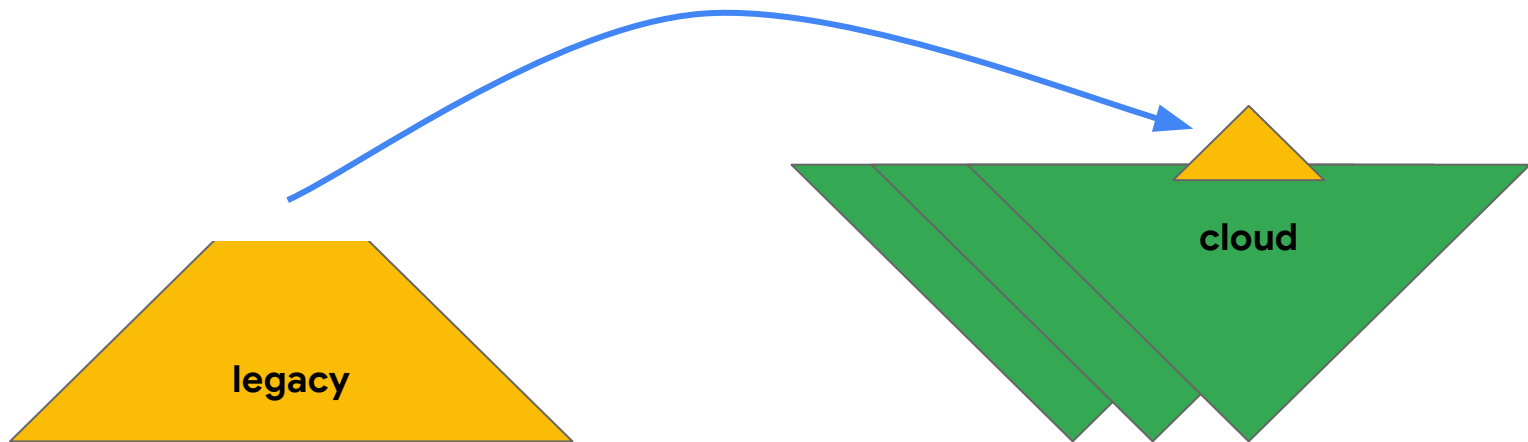
Worked great, for
a long time

Common
mental model

Cloud is here,
though.

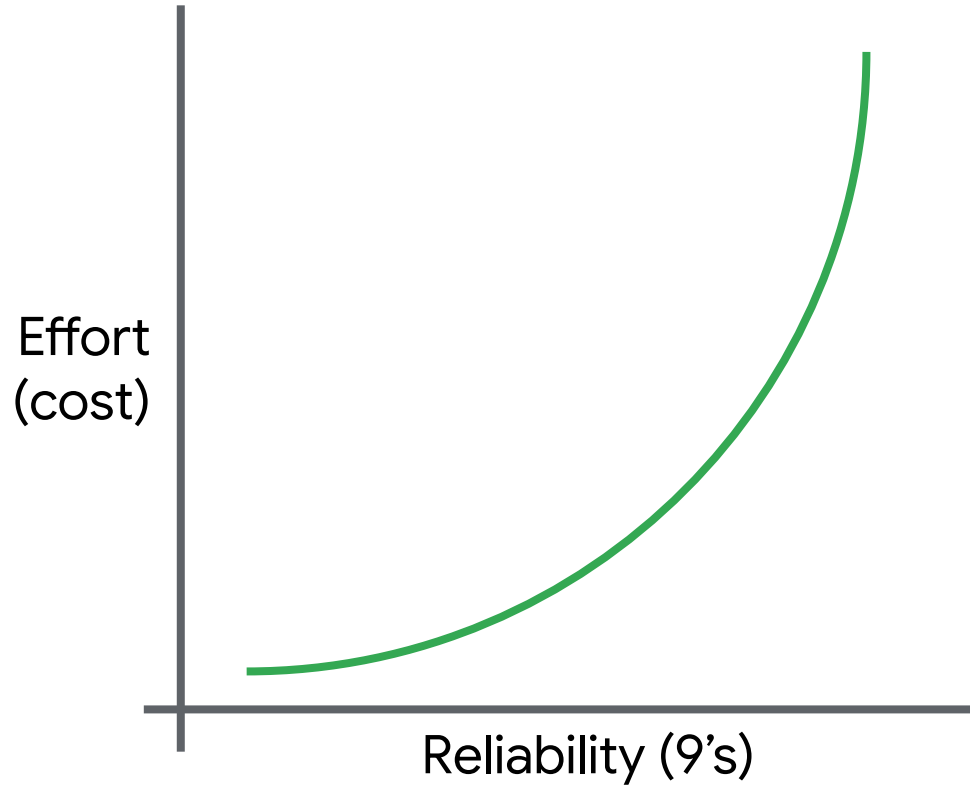
(because scale, mostly)

((You can't buy more nines
for your VM in Cloud))

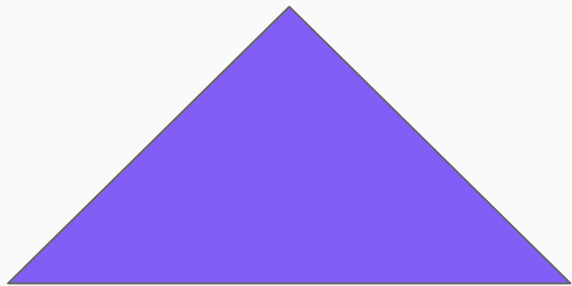


Infrastructure changes **can't fix** the app.

Continuum of platforms and complexity (reliability example)

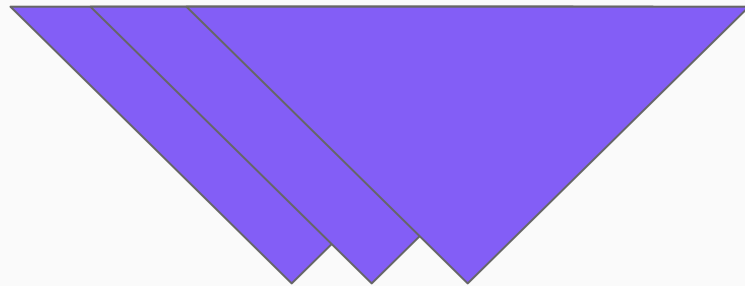


The Pyramids



Component reliability:

- solid base (big cold building, heavy iron, redundant disks/net/power)
- all components must be up as much as possible - ***union model***
- **total availability** as goal
- "scale up"



Scalable reliability:

- less-reliable, cost-effective base
- software *improves* availability
- any one of the components must be up: ***intersectional model***
- **aggregate availability** (99.9%) goal
- "scale out"

This Bears Repeating

You can build
more reliable things
on top of
less reliable things

a simple example: RAID. see: *The SRE I Aspire to Be*, @aknin SREconEMEA 2019