

Engineering Reliable Mobile Applications

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SREcon'17



Current State of SRE

“In general, an SRE team is responsible for availability, latency, performance, efficiency, change management, monitoring, emergency response, and capacity planning.”

- Ben Treynor, VP of Engineering, Google

Why Mobile?

Current State of Mobile

Caveat

Primarily based on Android

Challenges

The mobile environment is nonuniform and uncontrollable

Challenges

There are many options for application monitoring but no option is perfect

Challenges

Effecting change is hard

SRE&Mobile

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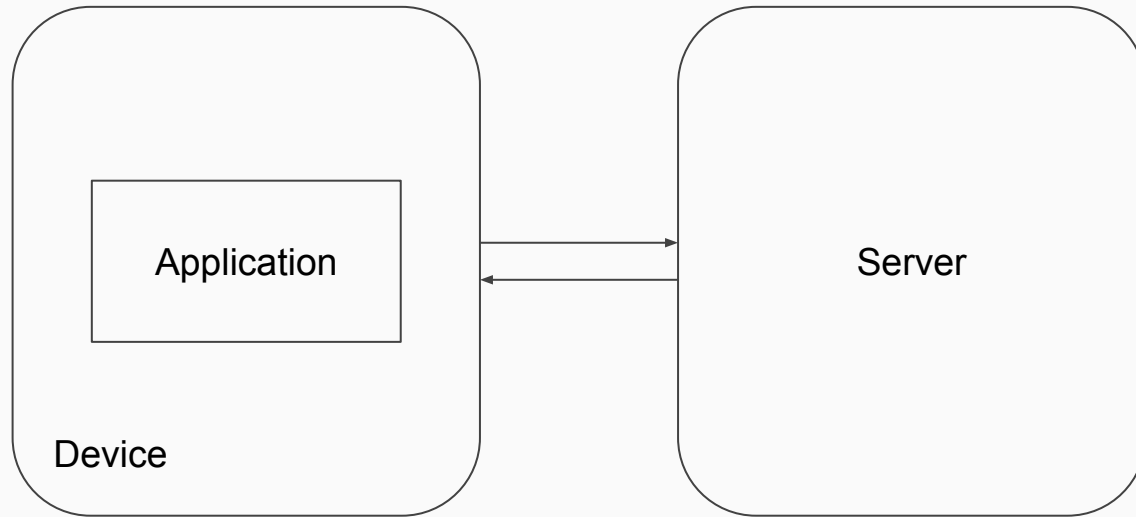
- Ben Treynor, VP of Engineering, Google

“In general, an SRE team for mobile is responsible for availability, latency, performance, efficiency, **change management, monitoring, and emergency response.**”

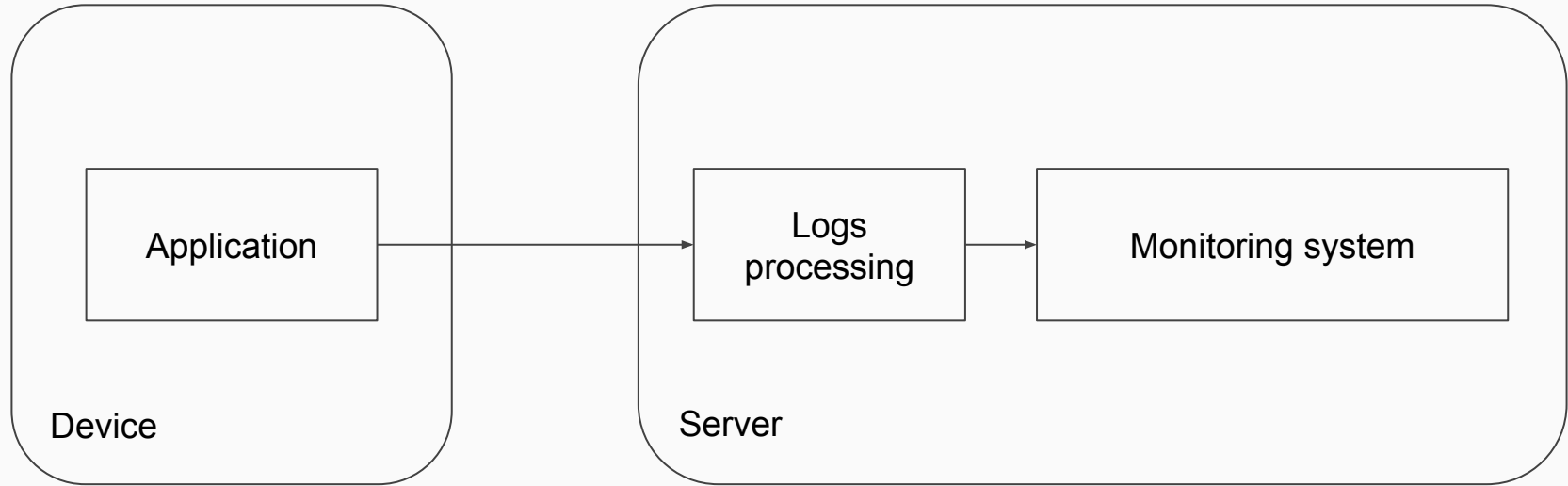
- Kristine Chen, this talk, SRECon'17

Monitoring

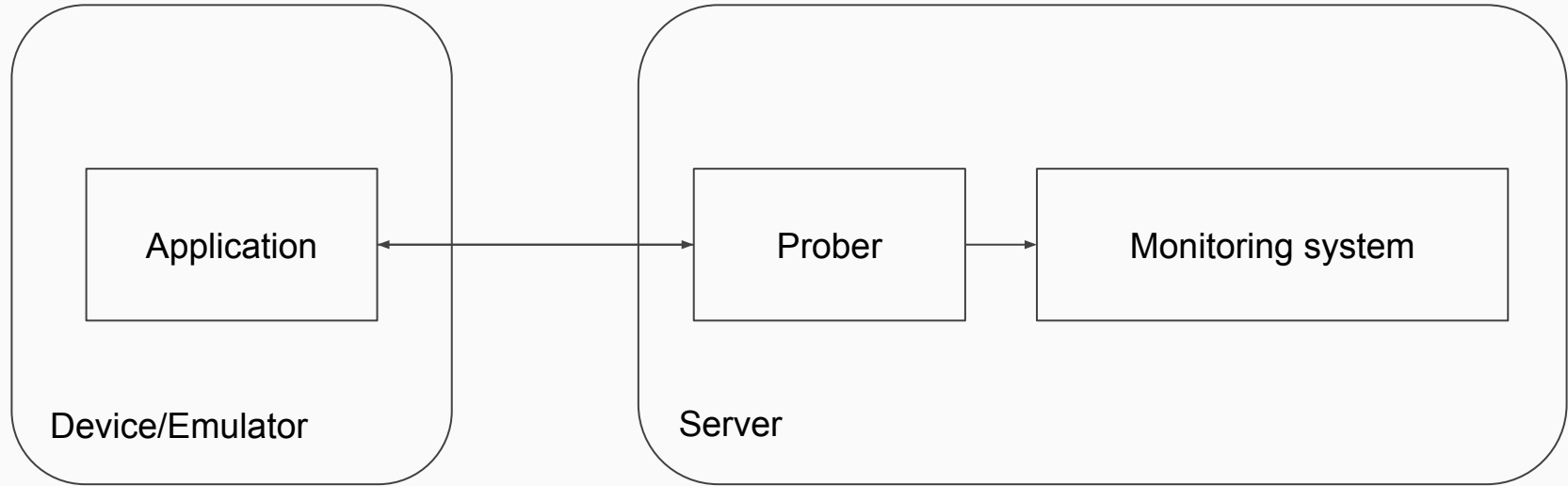
Server-side Monitoring



Client-side Monitoring*

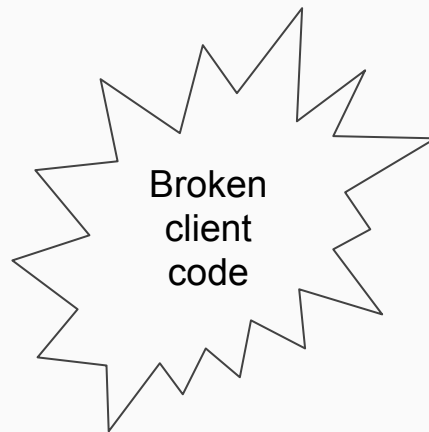
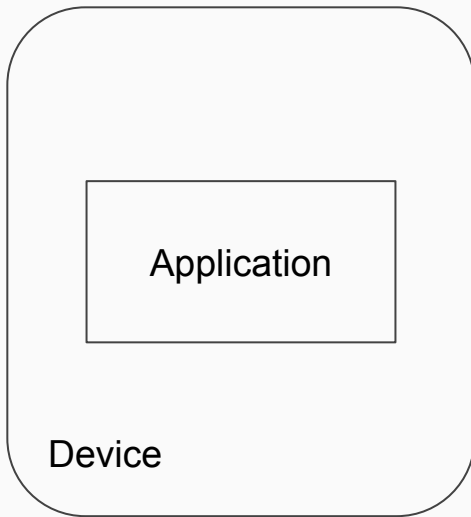
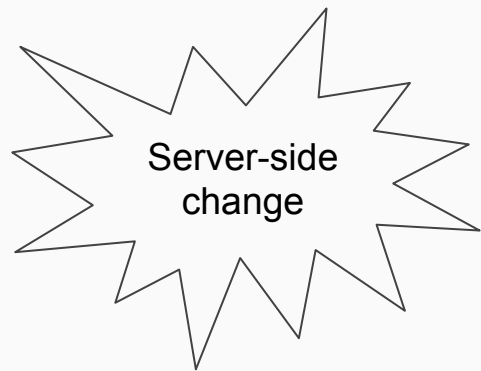


Blackbox Monitoring



Emergency Response

Emergency Response



Change Management

Staged Rollout

Stages: Alpha

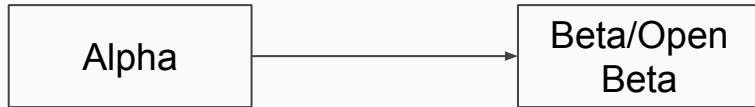
Alpha

Internal devices

Poor diversity

Small population

Stages: (Open) Beta

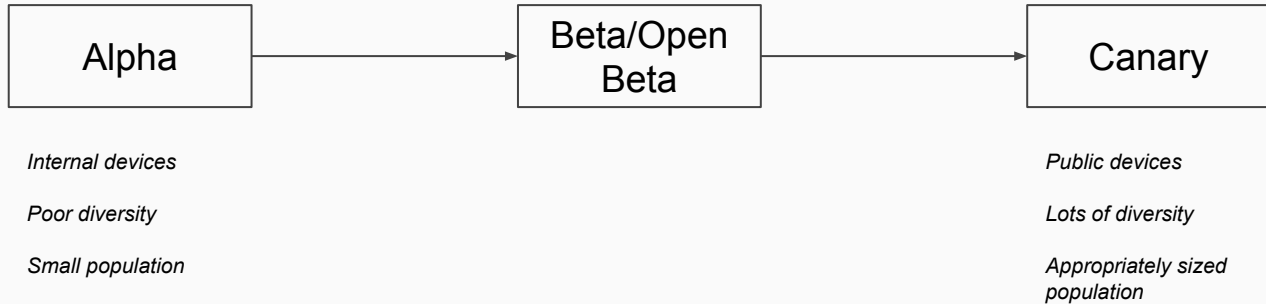


Internal devices

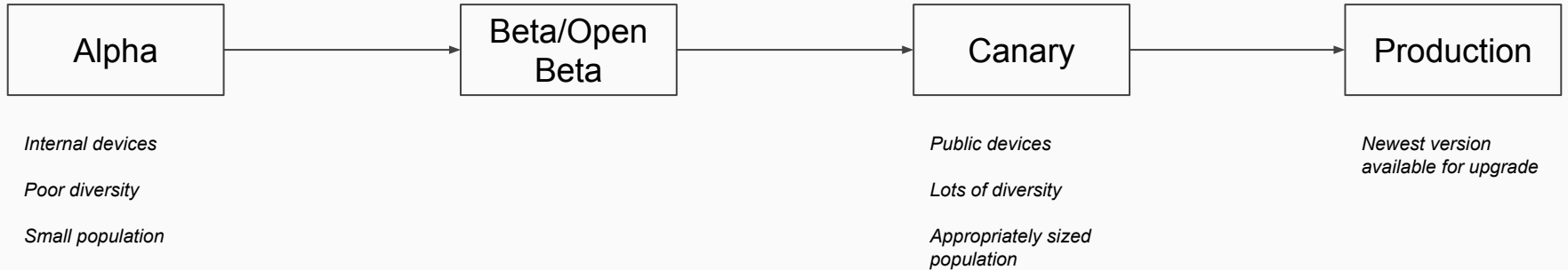
Poor diversity

Small population

Stages: Canary



Stages: Production



Other Changes

Future

What does success look like?

- Effective release tooling
- Easy experimentation
- Low latency for feedback loop
- Insight into client-side performance and business logic
- Sensible server-side controls

Q&A