Supercharge your SRE teams with Chaos Engineering

SKILup Day SRE
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Today’s Talk

- What’s Chaos Engineering?
- Why do SREs care?
- Innovation adoption lifecycle curve – where are we?
- Why Boring is good
- Chaos Engineering myths
- Getting CE on the roadmap
Chaos Engineering

“Chaos Engineering is the discipline of experimenting on a system in order to build confidence in the system’s capability to withstand turbulent conditions in production.”

-- Principles of Chaos Engineering
https://principlesofchaos.org
Chaos Engineering

“experiencing
to build confidence
to withstand turbulent conditions”

-- Principles of Chaos Engineering
https://principlesofchaos.org
Why do SREs care?

SRE is “what happens when a software engineer is tasked with what used to be called operations”

-- Ben Treynor
founder of Google's Site Reliability Team
Why do SREs care?

Building **scalable** and **reliable** systems
Reliability

1. The quality of being **trustworthy** or of **performing consistently well**.

   “A fundamental aspect to building relationships is providing reliability.’

   -- Oxford dictionary
Remarkably reliable
Why do SREs care?

Building **scalable** and **reliable systems**
Why do SREs care?

SRE

Chaos Engineering

reliable systems
Testing

- Unit tests
- Integration tests
- End-to-end (e2e) test
- Chaos Engineering
Chaos Experiment - ideas

What if?

• Network latency increases?
• Traffic spikes?
• Database becomes slow?
• We trigger circuit-breaker?
• The application needs to heal?
• …
4 steps to Chaos Experiment

1. Ensure observability
2. Measure steady state
3. From hypothesis
4. Run experiment
4 steps to Chaos Experiment

1. Ensure observability
2. Measure steady state
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Innovation adoption lifecycle

https://en.wikipedia.org/wiki/Technology_adoption_life_cycle
Boring is good
What's the biggest blocker for #chaosengineering from your POV?

#sre #devops #resiliency

What's blocking you from doing Chaos Engineering?

You can see how people vote. Learn more

- Difficulty generating buy-in: 50%
- Missing/hard to use tools: 11%
- Inadequate training: 27%
- Other (comment below): 11%

62 votes • Poll closed • Remove vote

Reactions

2,673 views of your post in the feed
Chaos Engineering myths

- "It’s Chaos Monkey, right?" / "It’s breaking things randomly"
- "It’s testing in production"
- "It’s only for massively distributed systems"
- "We’re not mature enough for CE"
- "We already have enough chaos ;)

https://www.linkedin.com/pulse/top-5-chaos-engineering-myths-debunked-mikolaj-pawlikowski/
Getting Chaos Engineering on the roadmap

- Risk vs. reward
- Getting called less

Risk vs. reward; ROI
Leading Causes of Death

Data are for the U.S.

Number of deaths for leading causes of death

- Heart disease: 647,457
- Cancer: 599,108
- Accidents (unintentional injuries): 169,936
- Chronic lower respiratory diseases: 160,201
- Stroke (cerebrovascular diseases): 146,383
- Alzheimer’s disease: 121,404
- Diabetes: 83,564
- Influenza and pneumonia: 55,672
- Nephritis, nephrotic syndrome, and nephrosis: 50,633
- Intentional self-harm (suicide): 47,173

Chaos Engineering:
Site reliability through controlled disruption

Manning
https://www.manning.com/books/chaos-engineering

Mikolaj Pawlikowski
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