Chaos Engineering

Javier Carrillo González – UO269412

Andrea García Cernuda – UO270115

Héctor Fernández Maillo – UO271913

What is Chaos Engineering?
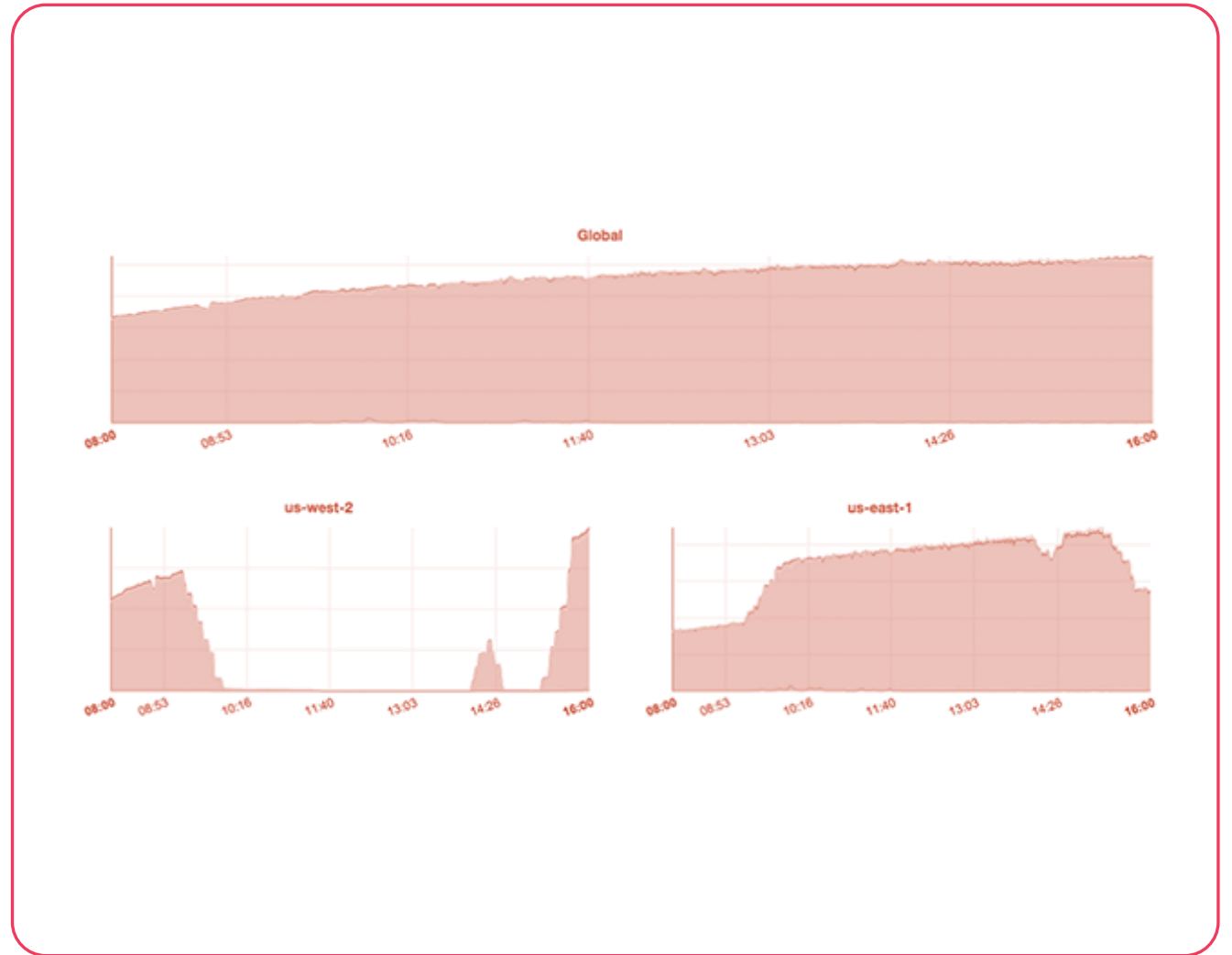
History: from a monkey to a discipline

Chaos Kong exercise in progress

Global

us-west-2

us-east-1

Practical steps

Steady state → Make a hypothesis → Stress variables → Invalidate the hypothesis

	Knowns	**Unknowns**
Known	Things we are aware of and understand.	Things we are aware of but don't understand.
Unknown	Things we understand but are not aware of.	Things we are neither aware of nor understand.

Types of experiments

Principles

Run experiments in production

Build a hypothesis around steady state behaviour

Vary real-world events

Minimize blast radius

Automate experiments to run continuously

Advantages	Disadvantages
Antifragility and resilience are gained	Implementation for large-scale systems can cause a higher cost
Prevention of significant economic business losses and costs	Failing in the experiment process could affect the customer
No loss of client confidence	
Help in finding bugs whose solutions may be found easily and faster	

When is this discipline recommended to be applied?

- Distributed systems
- Microservice architectures
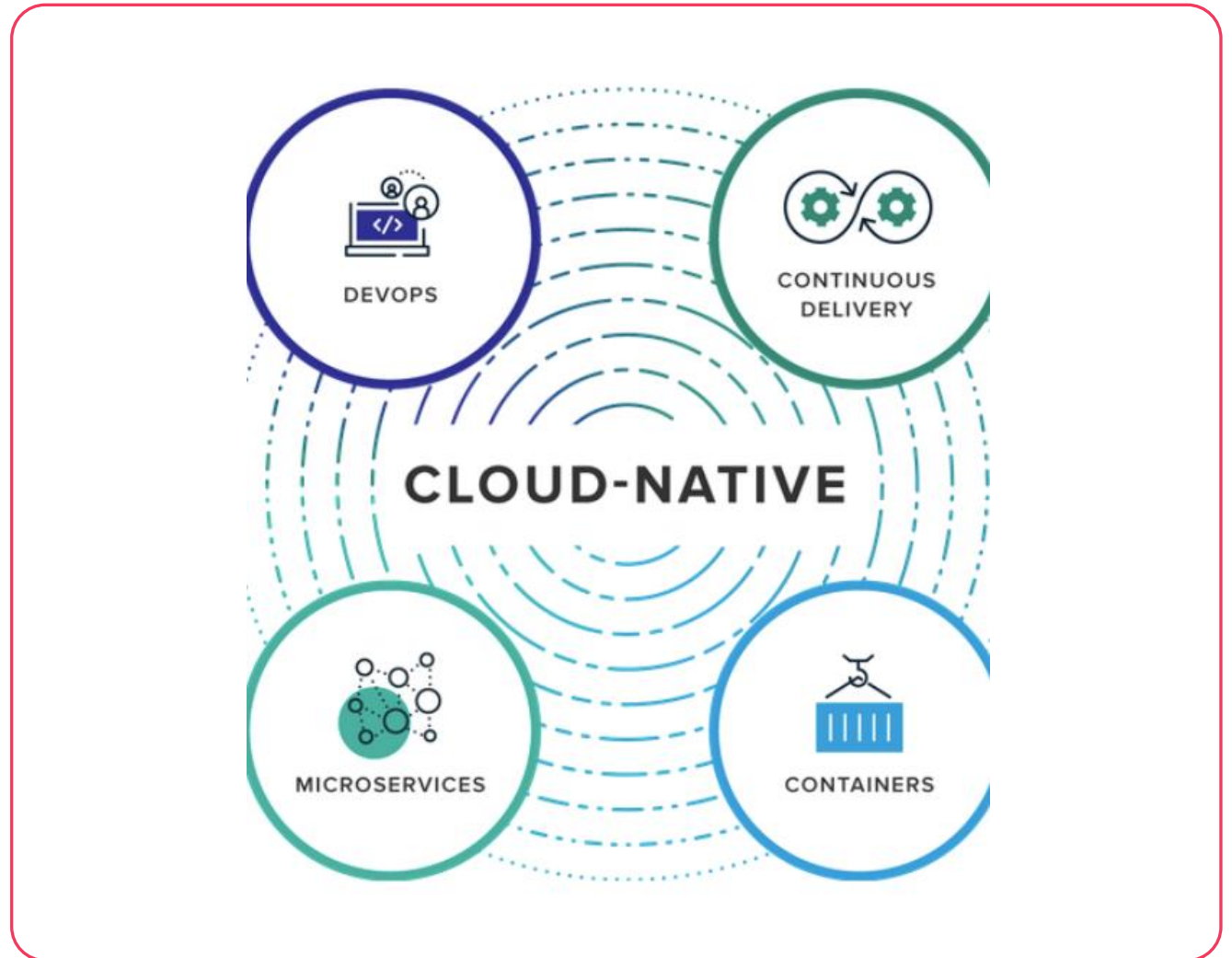
Which companies practice Chaos Engineering?