GetIT Meetup · April 26, 2019

The Web Through a Backend Engineer's Eyes

What comes next: code, data, systems, infrastructure, and automation

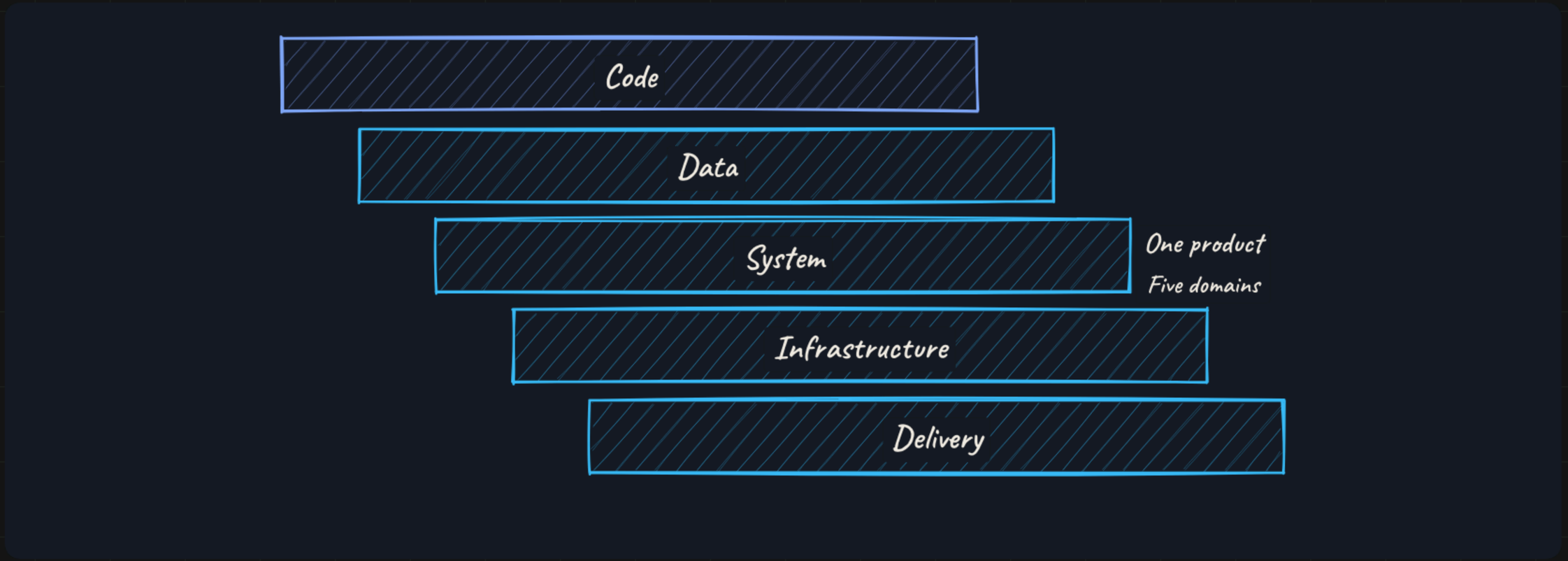
Alexander Polomodov

Speaker About

Engineering manager in ↗tinkoff.ru acquisition

- Public, unauthenticated part of ↗tinkoff.ru
- Release-free content management
- Automation for acquisition channels
- Personalization and A/B tests

The web is an evolution of systems



Part 1

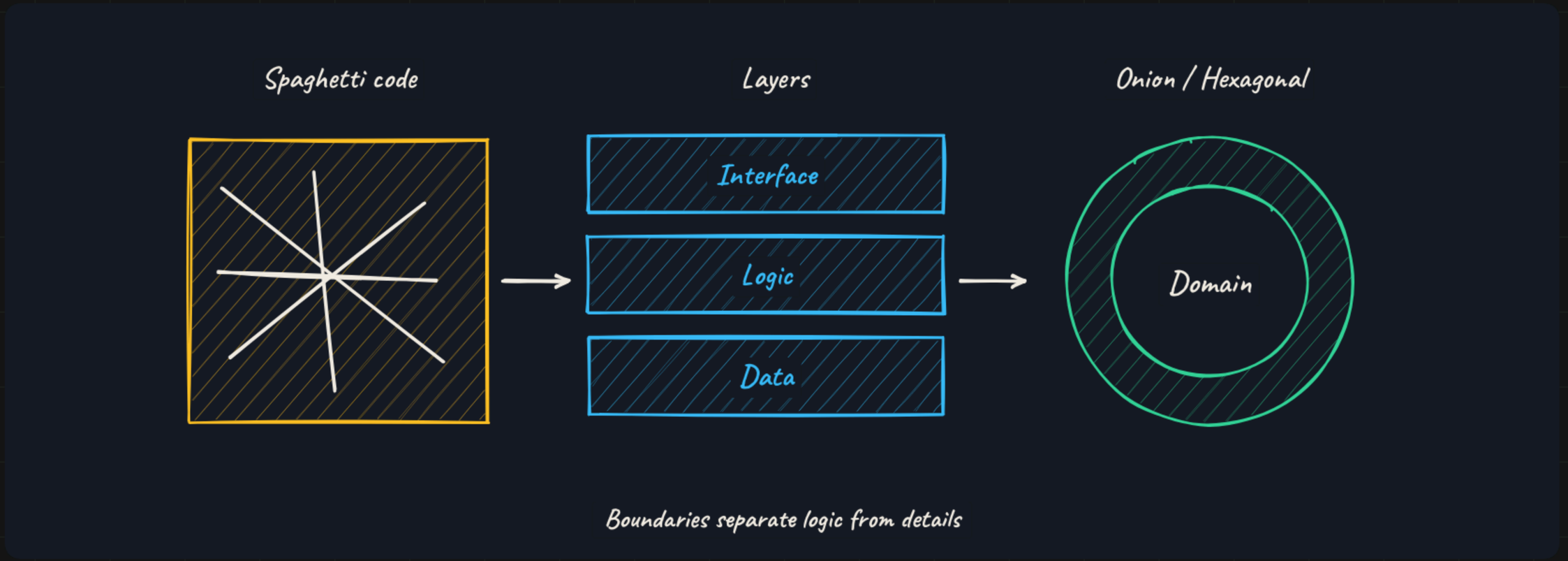
01

Code Organization

From spaghetti to explicit architectural boundaries

Evolution starts as a fight for clear boundaries

Code | Application



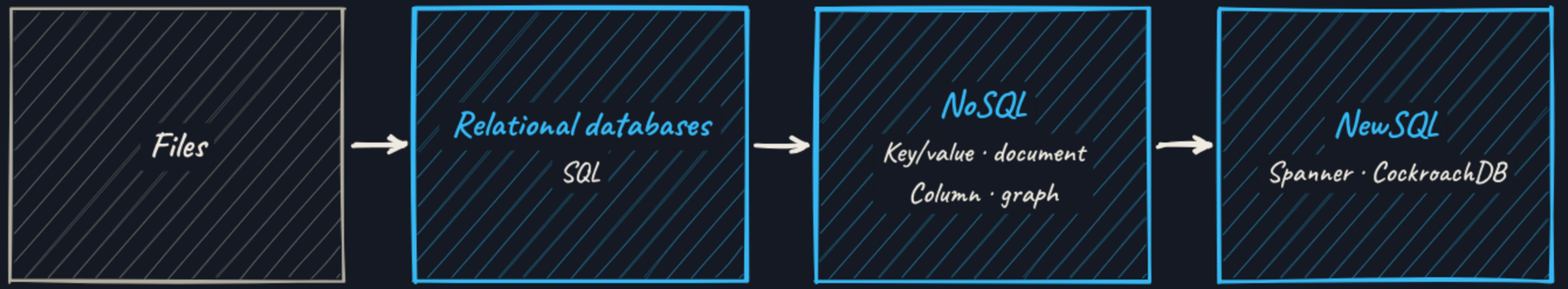
Part 2

02

Data Storage

Every new class of problems brings a new class of storage

Storage is chosen for the product model



New kinds of tasks → new data models

Part 3

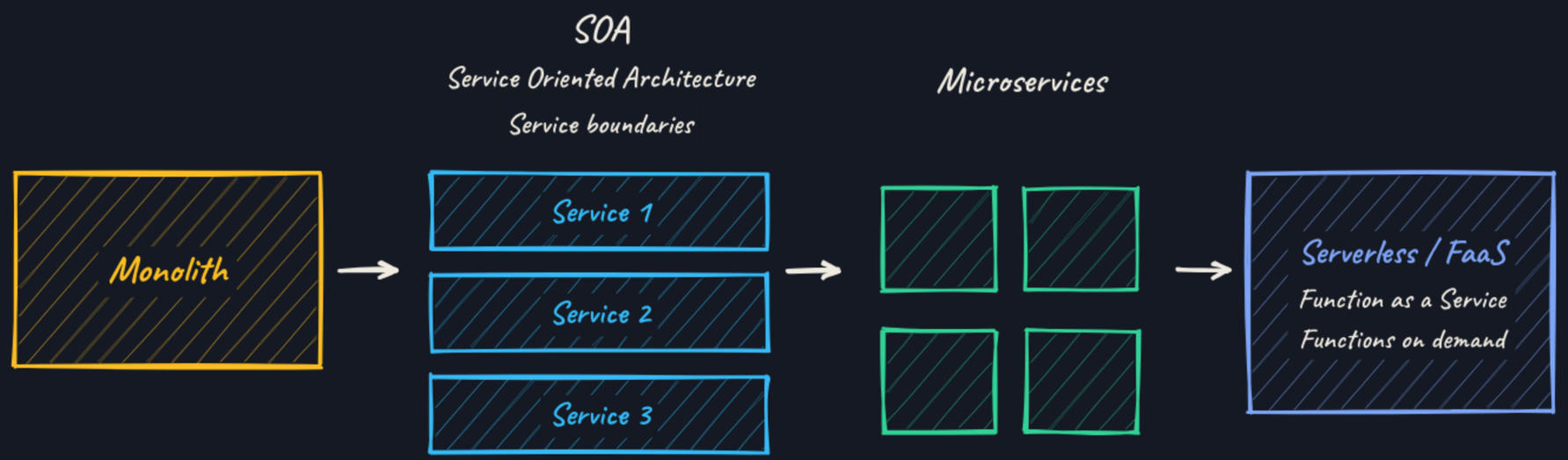
03

System Design

From monoliths to services and serverless

Web architecture becomes distributed

Systems Architecture



Part 4

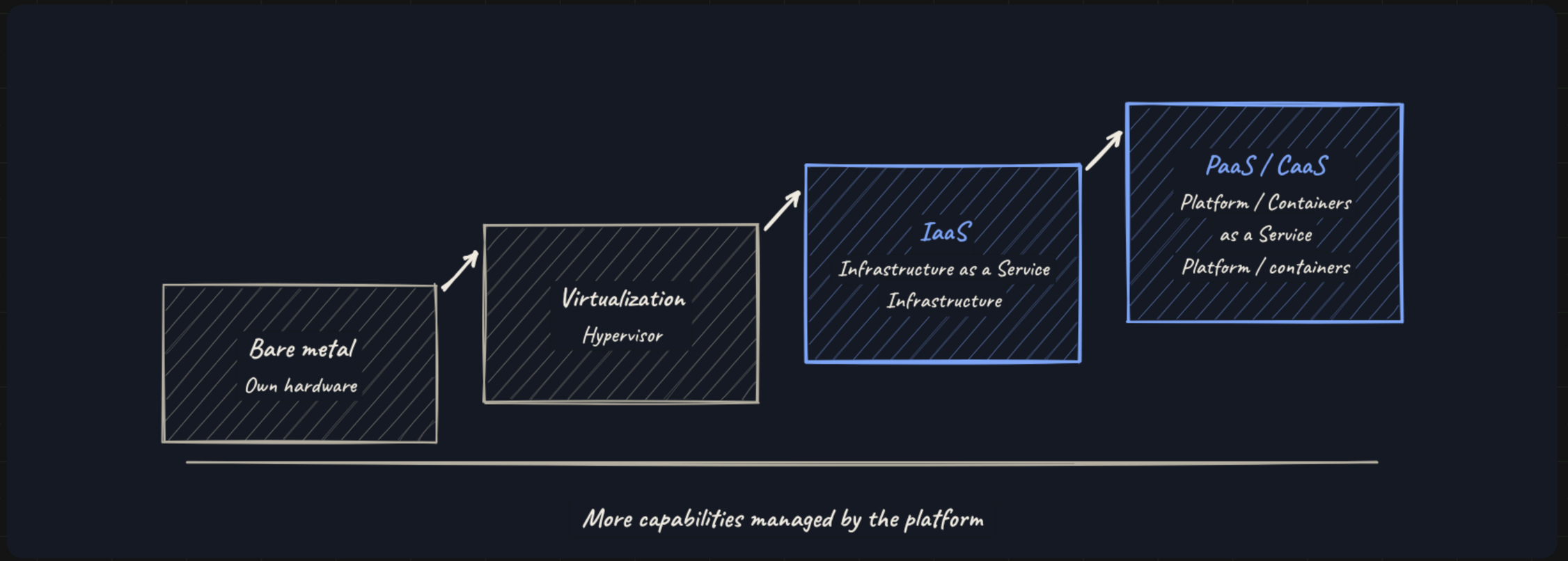
04

Infrastructure

Infrastructure stops being a separate workshop

The runtime moves to managed platforms

Infrastructure Runtime



Part 5

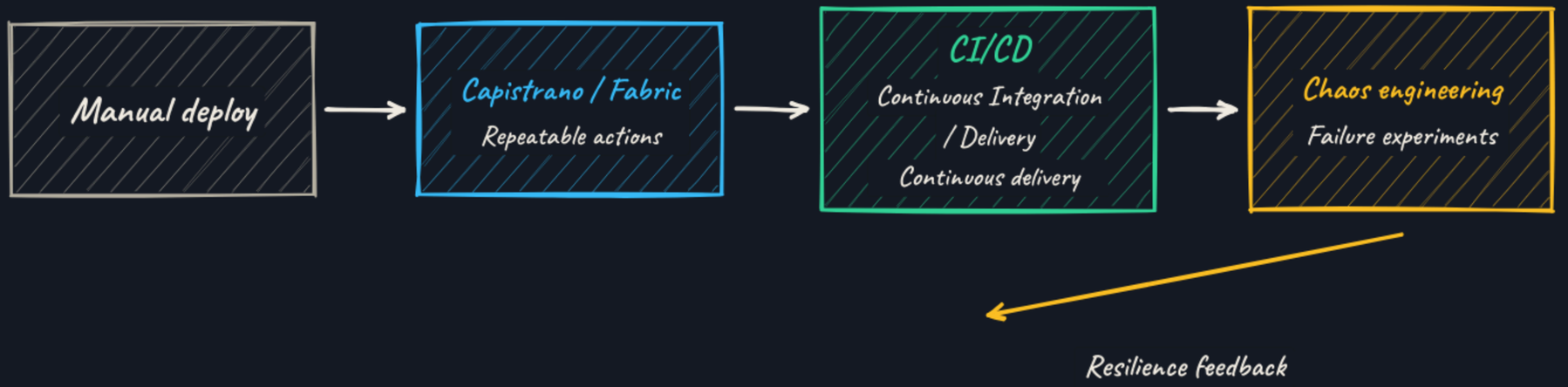
05

Process Automation

The delivery pipeline becomes part of the product

Automation helps test resilience

Automation CI/CD



Future What comes next

The web is a platform, not a page

Backend engineers live in distributed web systems

Code on platforms

CaaS, PaaS, serverless: the normal way to run backend

Data as a service

DBaaS lowers ops cost, raises the cost of design mistakes

Reliability in the pipeline

CI/CD and chaos engineering as daily practice

Final Takeaways

The web becomes systems engineering

- Code boundaries matter as much as the framework
- Storage is chosen for the product model
- Infrastructure and pipeline are part of the architecture
- The future of the web is distributed and managed

- web = systems engineering

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Questions?

All slides and links are in the Telegram channel

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