

Continuous Delivery

Topics

- **Continuous Delivery Overview**
- Continuous Delivery with Concourse and Pivotal Cloud Foundry

Defining Terms

- **Continuous delivery**

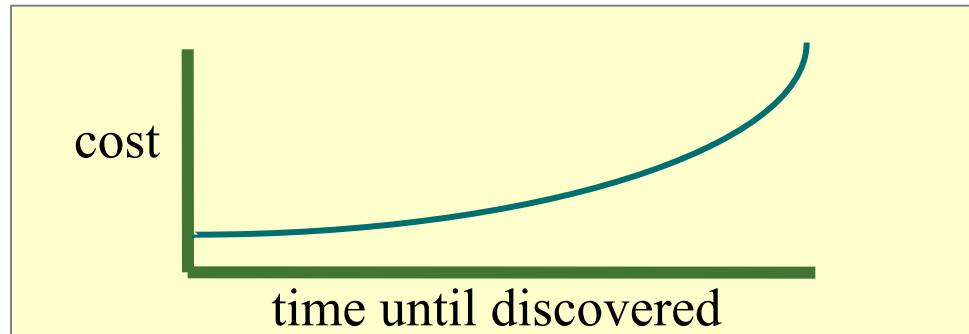
- Running automated compilation, checks and tests on a frequent basis
- Code is deployable to production at any time (an option)
- Effective continuous delivery requires automated tests
- Tool examples: Bamboo, Jenkins, Cruise Control, Team City, Concourse

- **Continuous deployment**

- Continuous delivery to production

Benefits of Continuous Delivery

- Goal: prevent integration / deployment problems by discovering them early
 - Small changes lead to small problems, big changes lead to big problems
 - The cost of a bug grows exponentially in proportion to the time before it is discovered



Continuous Delivery

- Continuously run through the “deployment pipeline”

Compile

Code Quality Checks



Packaging

Deployment

Continuous Delivery

You're doing continuous delivery when:

- Your software is deployable throughout its lifecycle
- Your team prioritizes keeping the software deployable over working on new features
- Anybody can get fast, automated feedback on the production readiness of their systems any time somebody makes a change to them
- You can perform push-button deployments of any version of the software to any environment on demand

Martin Fowler, May 2013

Topics

- Continuous Delivery Overview
- **Continuous Delivery with Concourse and Pivotal Cloud Foundry**

Continuous Integration & Delivery

Benefits

AUTOMATION.

Integrate tools and automate processes from testing to builds and deployment

SPEED.

Release more frequently with smaller bits will reduce complexity and improve time-to-market

QUALITY.

Reduce feedback loop using test-driven development to surface problems sooner and be responsive

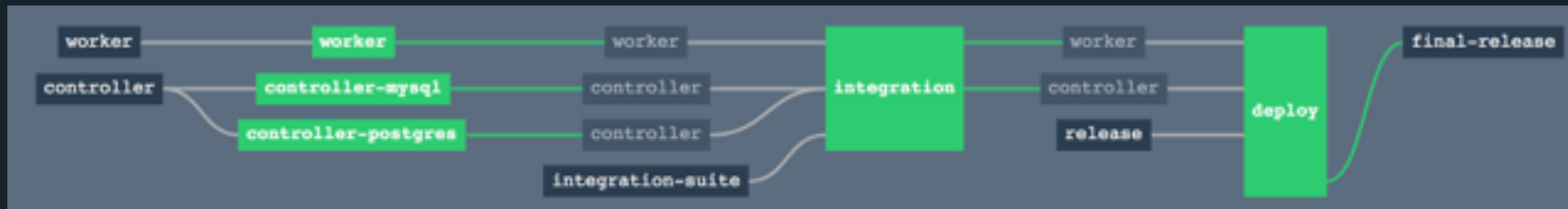
AGILITY.

Push updates on regular basis with no downtime to improve customer experience and time to market

Concepts



Pipeline



Concourse

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Example Continuous Delivery Pipeline



- pending
- started
- succeeded
- failed
- errored
- aborted
- paused