

Software Engineering Essentials



Release Management

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Learning Goals

- 1) Explain the idea of continuous delivery
- 2) Describe the benefits of release management

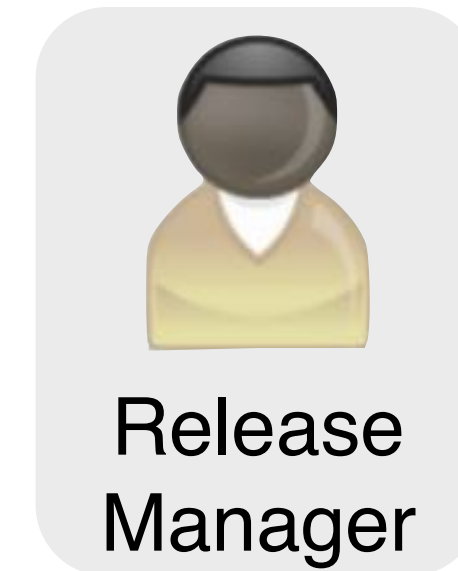
Release management

- Produce valuable software in **short cycles**
- Ensure that software can be reliably released **at any time**

A **release manager** has different responsibilities:

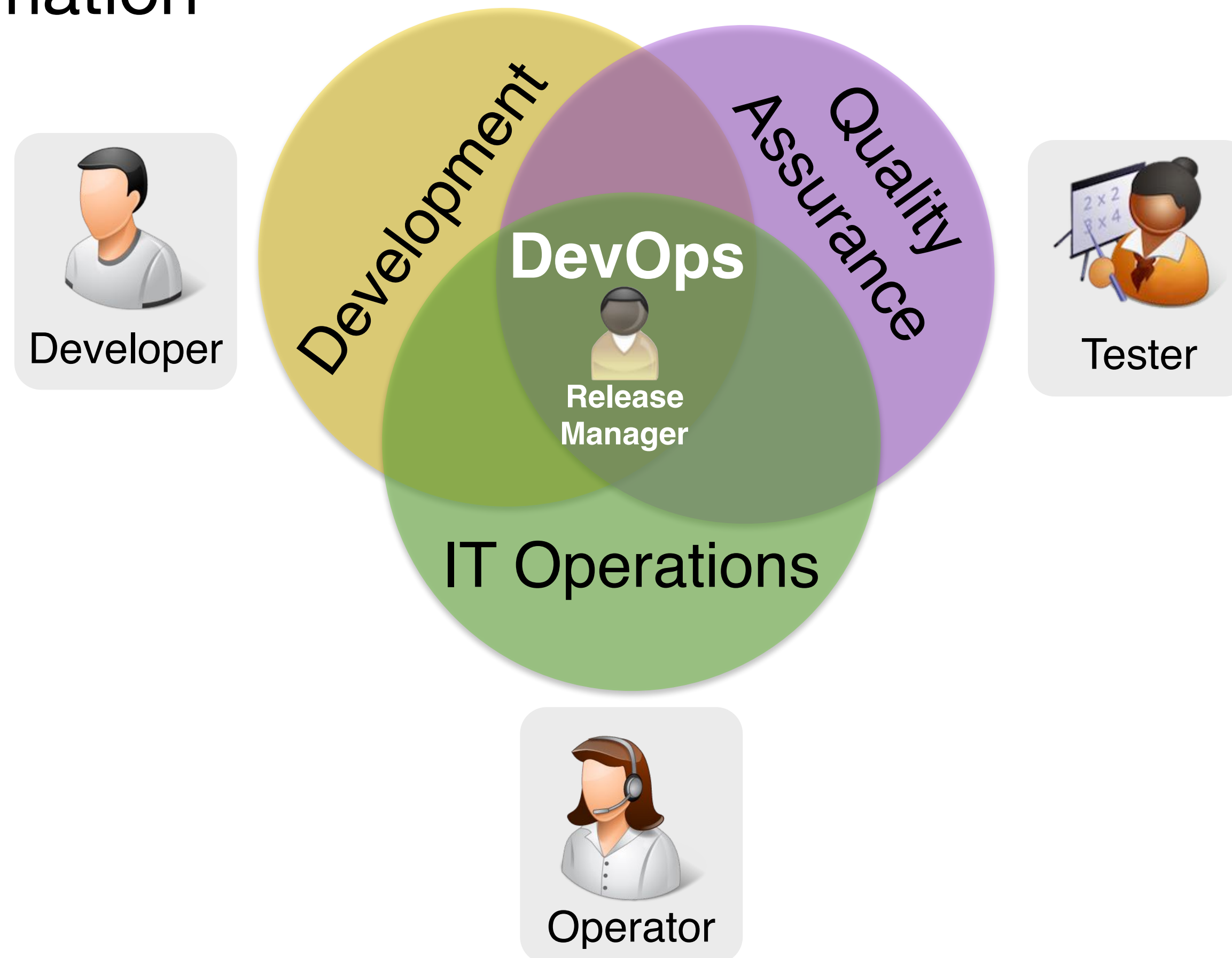
- **Facilitator:** liaison between business
- **Coordinator:** coordinate source code, branches, projects, teams and components

➔ Development and operations departments work together: **DevOps**



DevOps

Development + Operations emphasizes on communication, collaboration and automation



Continuous delivery: benefits and challenges

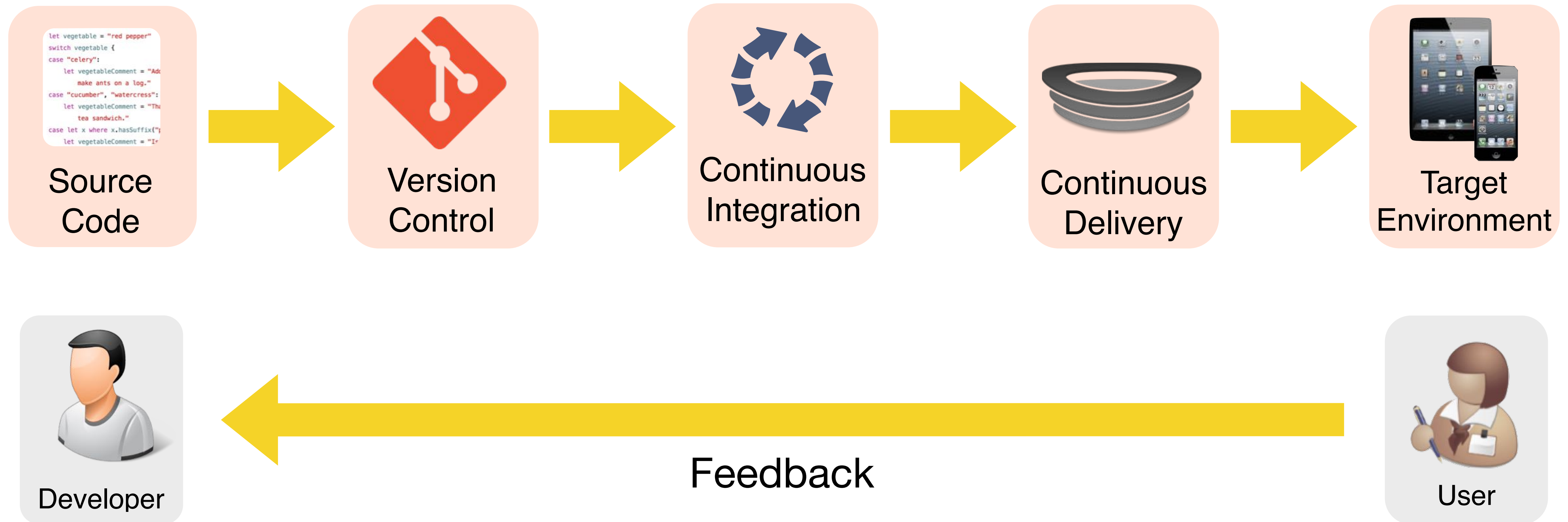
Benefits

- + Accelerated time to market
- + Building the right product: improved product quality and customer satisfaction
- + Improved productivity and efficiency
- + Reduced risk of a release failure

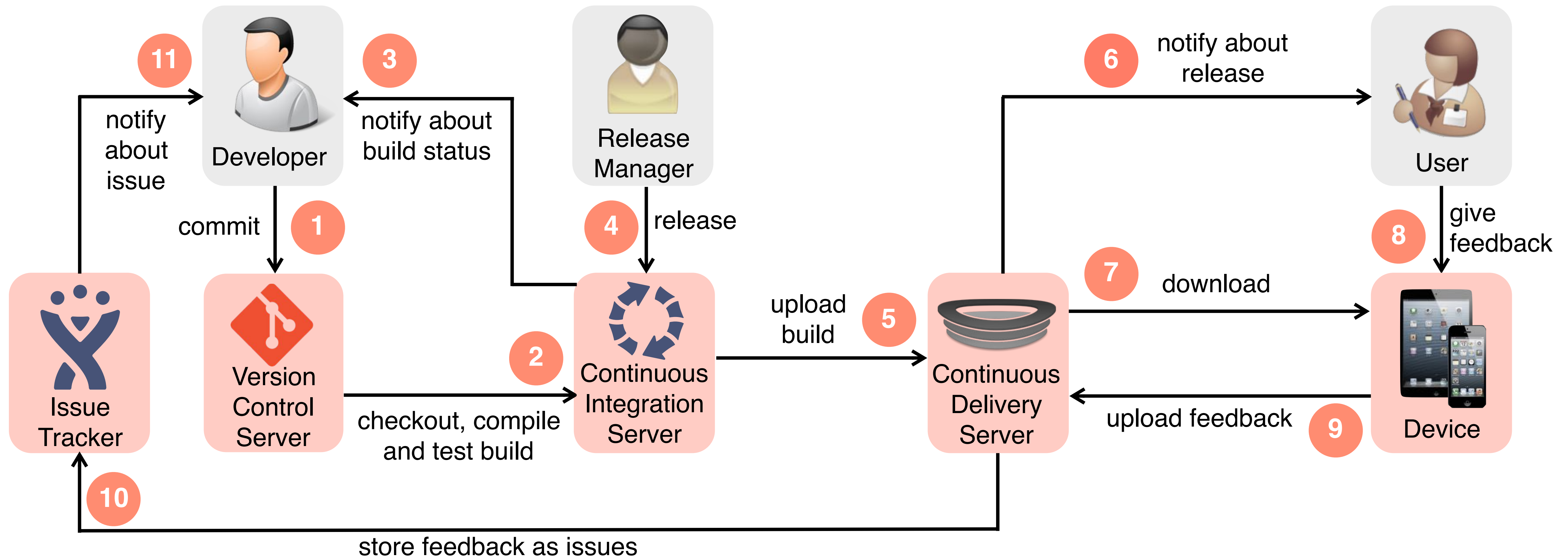
Challenges

- **Organizational:** Varying interests in different departments of an organization
- **Process:** Traditional processes hinder continuous delivery
- **Technical:** Maintainability of the source code & tailorable delivery workflows for heterogeneous project environments

Release and feedback management



Example for a build and release management workflow with feedback



Not shown in this workflow: build failures, test failures, release failures

Best practices

- Releasing and deploying software must be **repeatable and reliable**
 - ➡ If something is difficult or painful, do it more often
 - ➡ **Automate every step of the build process and write test cases**
- Integrate your changes early and often
- Release early and often to obtain feedback
 1. Release internally first: test it thoroughly and fix all errors
 2. Then promote the release to your users
- **React to crashes and user feedback**
- ➡ **Improve software continuously**

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