

Continuous Delivery

Hi, I'm **Levy Linn** **Linnsky**

@linnsky on twitter, github, and cool.org
and where I can get in touch

WIP



Hi, I'm Howard

@tizzo on twitter, github, drupal.org
and anywhere I can get it





Zivtech

Open Source Innovation

Zivtech

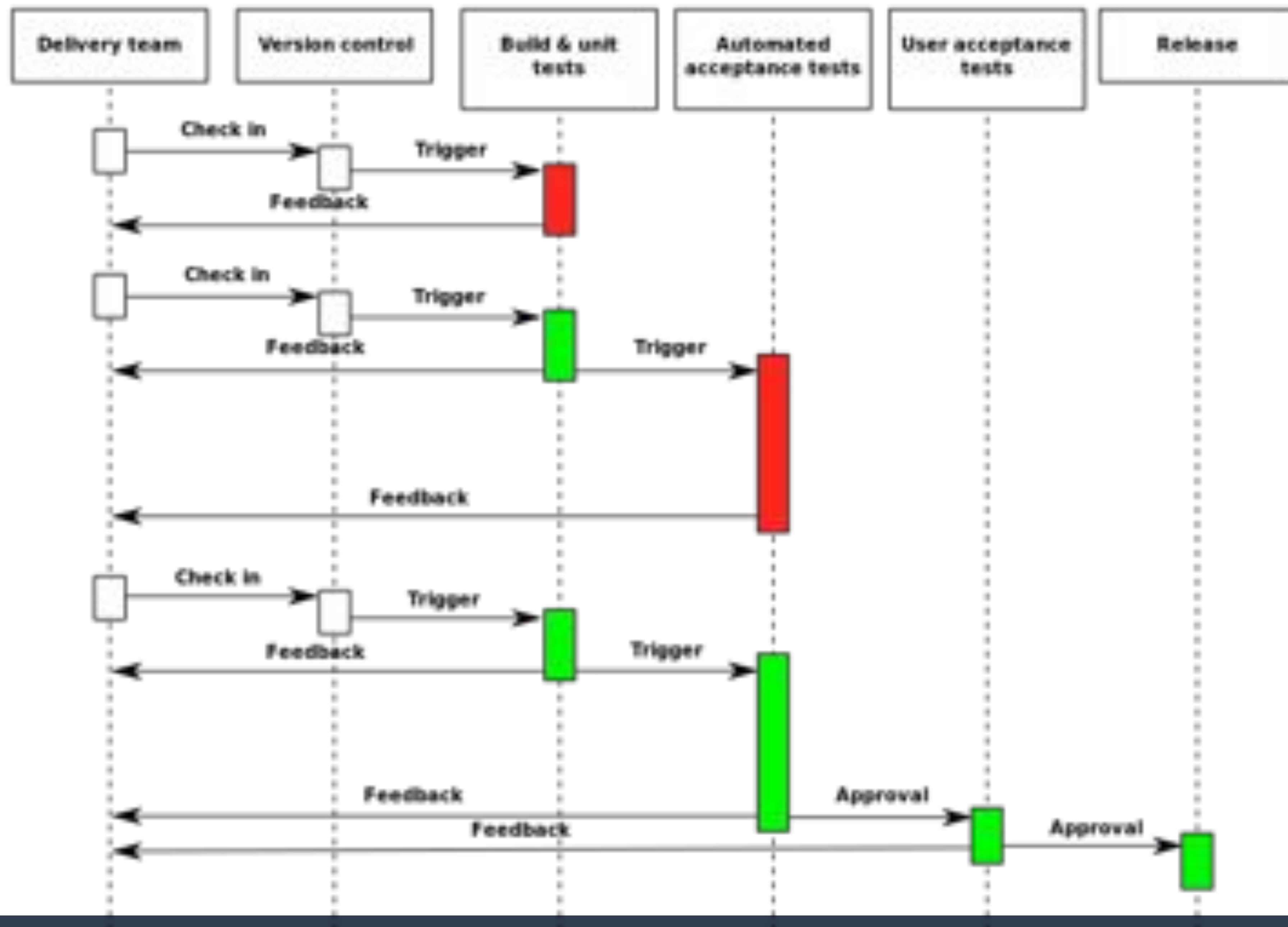


Continuous Integration



Continuous Delivery





Continuous Deployment

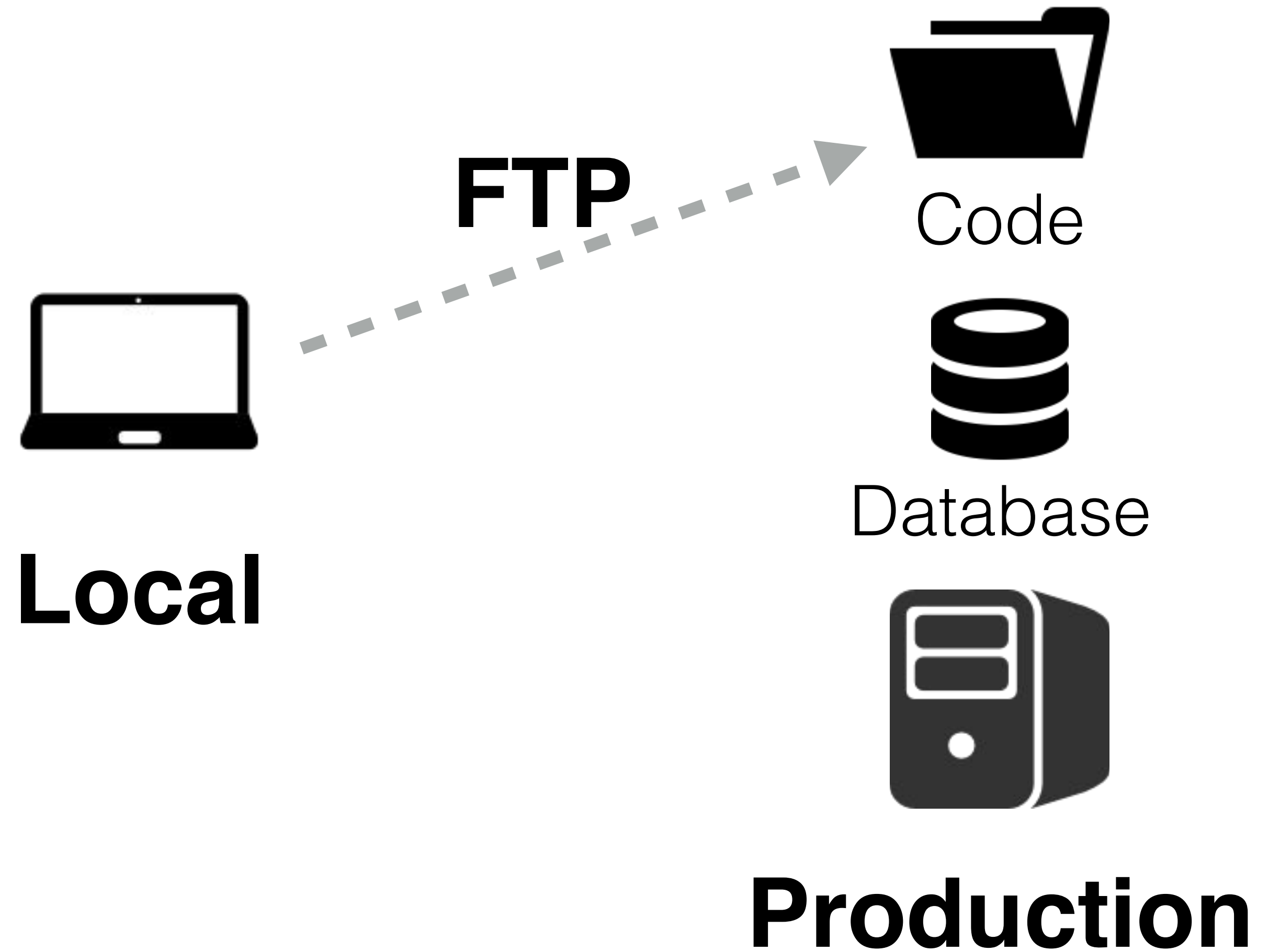


**Efficiency = Small
Feedback Loop**





The Original Workflow



The Traditional Workflow

Create and assign ticket



Code



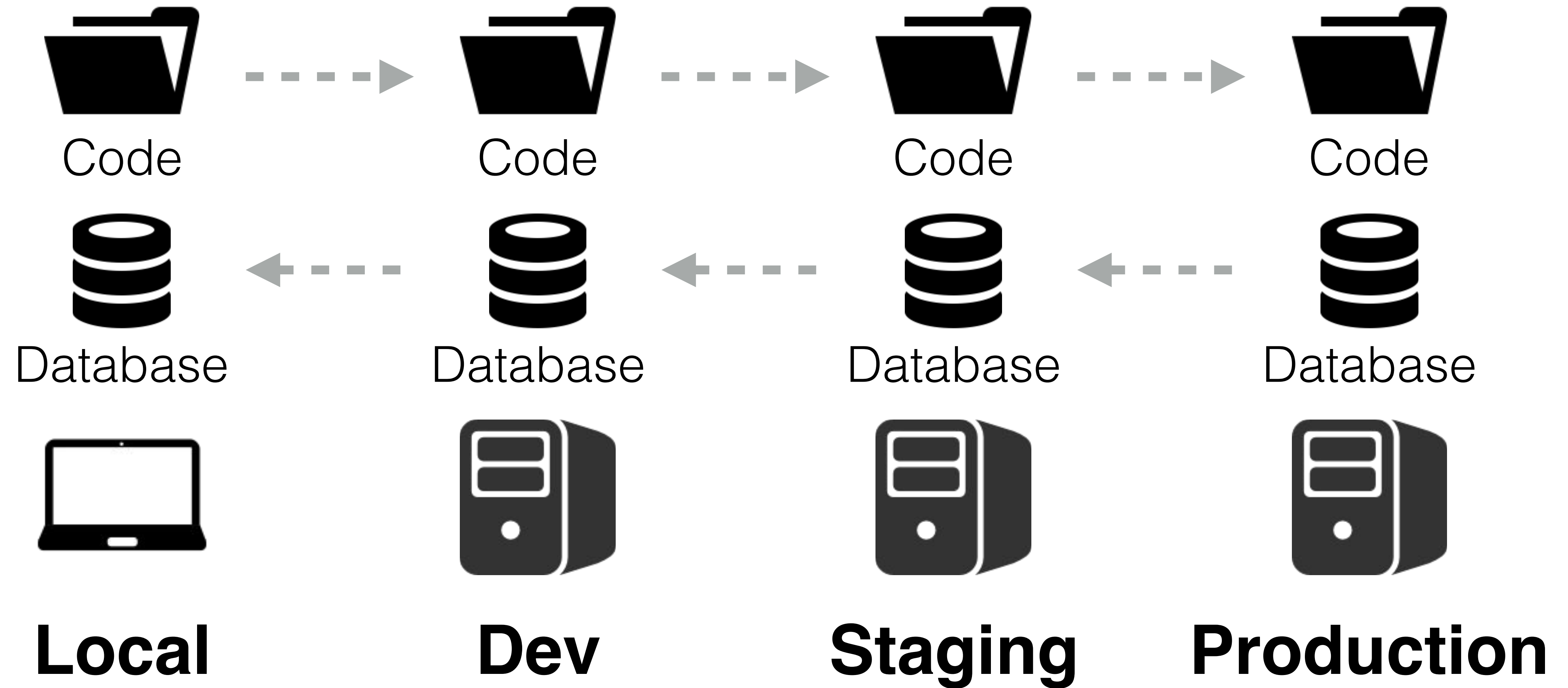
Commit



Review on Dev



The Traditional Workflow



The Better Workflow

Create and assign ticket



Code



Commit to a feature branch



Review the branch before merging to dev



Client reviews on dev

RUN TESTS

RUN TESTS

RUN TESTS



The Best Workflow

Create and assign ticket



Code



Commit to a feature branch



Client reviews in sandbox



Merge and deploy

RUN TESTS

RUN TESTS

RUN TESTS



Our Old Workflow



Maybe your
current one?



Lead assigns tickets



Devs are happy to help



Dev thinks and codes



Project Manager checks in



Dev promises it's all done



PM asks for a review



Lead checks out the branch



Lead reverts features



Lead runs database updates



Lead finds problems



Devs hear the grumbling



Devs hear the grumbling



Grumbling



PM fears the deadline



Dev regrets the mistake



PM *hopes* it's right now



Lead sees it finally works



Lead merges the fix



**But the client
hasn't reviewed it!**



Clients want some fixes



But it was all merged to get it to the dev environment

```
a277cf0 Ticket #1, adding an image content type.  
4483681 Ticket #3, adding view for the news section.  
a65c40e Ticket #1, creating the homepage slider.  
1a1df95 Ticket #4, making name required on registration.  
0dbe2e6 Ticket #1, updating the image style.  
24b55b6 Ticket #4, adding middle initial field.  
0dbe2e6 Ticket #5, adding login rule for redirect.
```



The client wants to deploy one feature they need and are happy with

a277cf0	Ticket #1,	adding an image content type.
4483681	Ticket #3,	adding view for the news section.
a65c40e	Ticket #1,	creating the homepage slider.
1a1df95	Ticket #4,	making name required on registration.
0dbe2e6	Ticket #1,	updating the image style.
24b55b6	Ticket #4,	adding middle initial field.
0dbe2e6	Ticket #5,	adding login rule for redirect.





**Hey Jason, just deploy some
of that**



`git cherry-pick`, I guess?

```
a277cf0 Ticket #1, adding an image content type.  
4483681 Ticket #3, adding view for the news section.  
a65c40e Ticket #1, creating the homepage slider.  
1a1df95 Ticket #4, making name required on registration.  
0dbe2e6 Ticket #1, updating the image style.  
24b55b6 Ticket #4, adding middle initial field.  
0dbe2e6 Ticket #5, adding login rule for redirect.
```



Enter Continuous Delivery



Our new workflow



Lead assigns tickets



Devs are happy to help



Dev thinks and codes



Dev opens a pull request



Project Manager checks it



PM sees it is right



Client sees that it is right



Lead merges and deploys it



Projects run smoothly



There is relief



And much rejoicing



That's Great.



But how?!?!



Repeatable Deployments



Git



Feature Branches

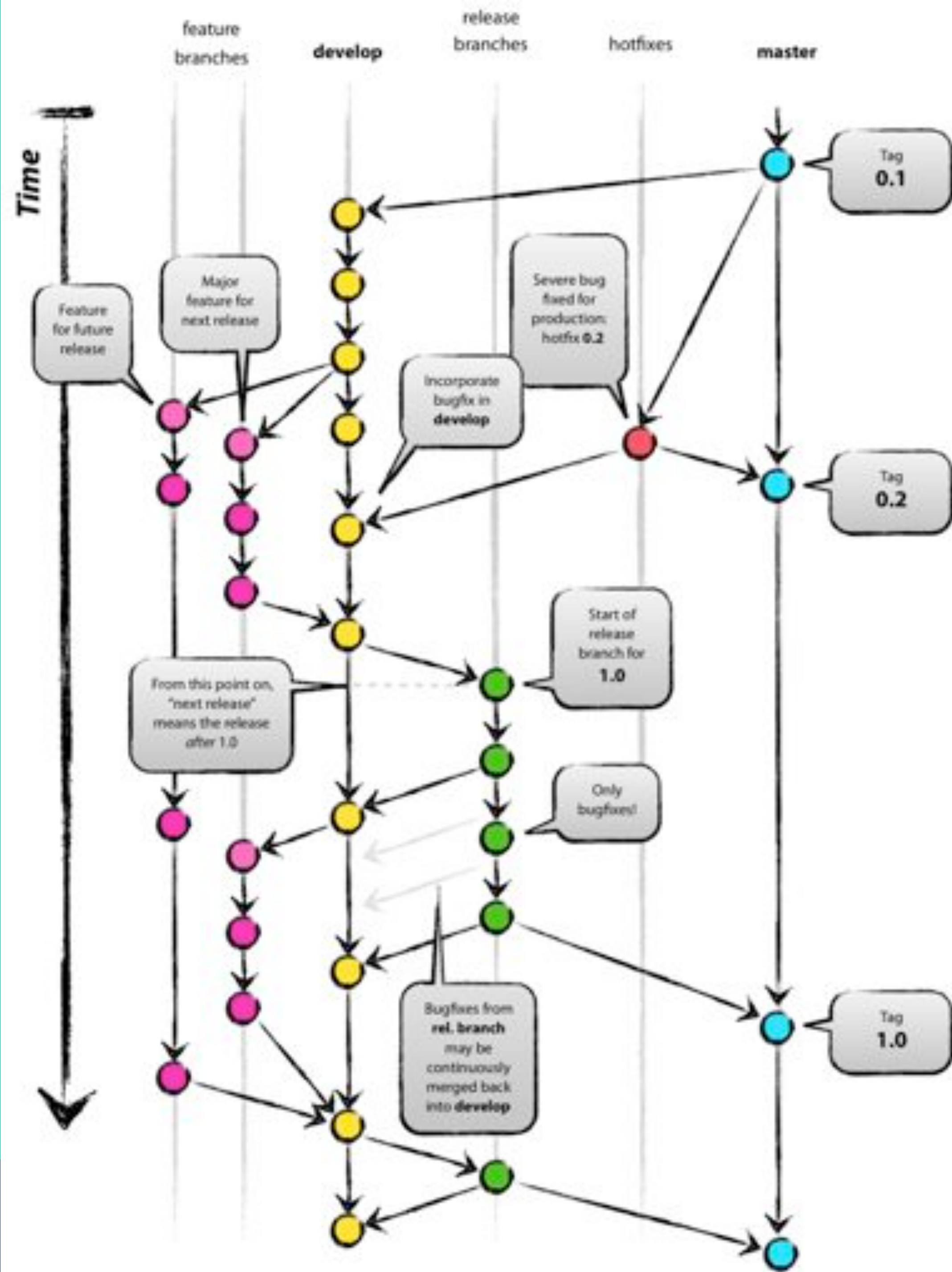


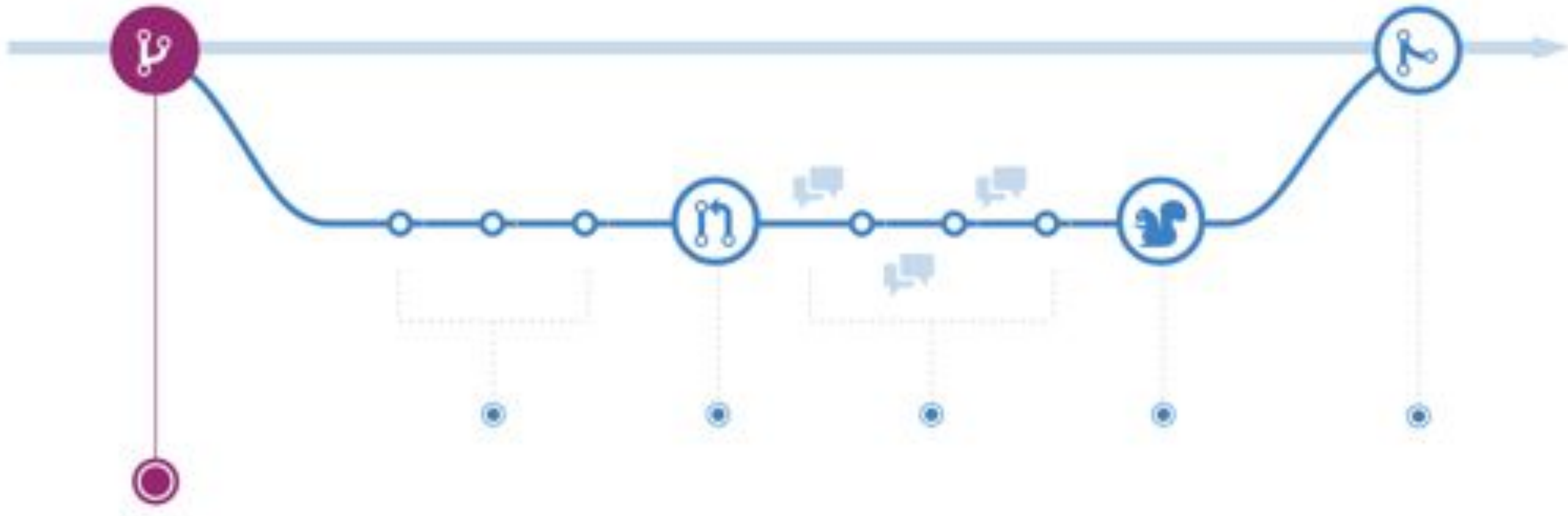
Feature Flags

Not great with

Drupal







Code Review

Are you doing it?



Reviewing your own code...



Via DevOps Reactions: <http://bit.ly/1l1Lbs1>



Reviewing someone else's code...



Via DevOps Reactions: <http://bit.ly/UQnmu0>



Features module



Strongarm module



settings.php(s)



hook_update_N



Configuration Management



Standards



HAVE THEM!



Coder / PHPCS



Testing



Simpletest



PHPUnit



Behat



Behat Drupal Extension



Automation





Jenkins



Jenkins

<https://jenkins-ci.org>

<http://jenkins-php.org>



- New Item
- People
- Build History
- Manage Jenkins
- Credentials

Build Queue ---

No builds in the queue.

Build Executor Status ---

1	Idle		
2	Cron - Johnny	#91838	
3	Idle		
4	Cron - Johnny	#115824	
5	Idle		

- All
- Backups
- Beer
- Billing
- Copland
- Cron
- Enabled Jobs
- +

S	W	Name ↓	Last Success
		All Files Backups - mcbaio	10 hr - #1432
		All Server Backups	8 hr 50 min - #1288
		Backup - Database - Blinky	13 hr - #259
		Backup - Database - Chalmers	13 hr - #309
		Backup - Database - DrNick	12 hr - #274
		Backup - Database - Hans	11 hr - #1089
		Backup - Database - Hutz	13 hr - #309
		Backup - Database - Lovejoy	13 hr - #308
		Backup - Database - Martin	13 hr - #1149





Travis CI



Search all repositories



My Repositories



✓ ProboCI/probo # 369

🕒 Duration: 1 min 34 sec

📅 Finished: 3 days ago

✓ tizzo/json-stream-formatter # 32

🕒 Duration: 2 min 16 sec

📅 Finished: 3 days ago

✗ tizzo/fetcher # 106

🕒 Duration: 1 min 2 sec

📅 Finished: 3 days ago

✓ ProboCI/probo-asset-receiver # 107

🕒 Duration: 3 min 12 sec

📅 Finished: 3 days ago

ProboCI / probo



build **passing**

Current

Branches

Build History

Pull Requests

✓ **build-class** Refacotring stream handling, standardizing, fixing interactive steps, updating tests.

📄 Commit 58fd19e

📄 Compare 980e0f4..58fd19e

👤 Howard Tyson authored and committed

Build Jobs

✓ # 369.1 📄 </> Node.js: iojs 📄 no environment variabl

✓ # 369.2 📄 </> Node.js: 4.0 📄 no environment variabl

✓ # 369.3 📄 </> Node.js: 4.1 📄 no environment variabl



**Perfect automated testing
is impossible with Drupal.**



**There's too
much code.**



**There's too
much in
the database.**





Without QA Sandboxes



- Master has a mix of things that are and are not yet vetted by clients
- Testing feature branches is hard, devs want to work on master
- Only developers can see anything on a feature branch
- Dev has useful test content but it gets wiped a lot



With QA Sandboxes

- **Master has only work approved by the client and is always ready for deployment**
- **Every team member and client can see where every ticket is**
- **Reviewing is easy - lead doesn't even need a local environment**
- **Test content needed for review doesn't get wiped**
- **Deployment steps have always been verified**



Probo.CI



“OMG, *another* CI tool...”

– Probably you





Probo.CI is...

- An ***Open Source*** Continuous Integration tool
- A ***Software as a Service*** platform for running tests

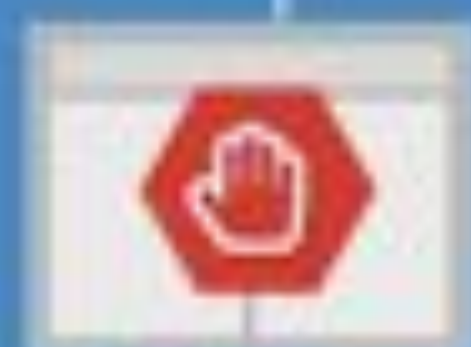
! Problems? Check what went wrong, fix any bugs, and try again.



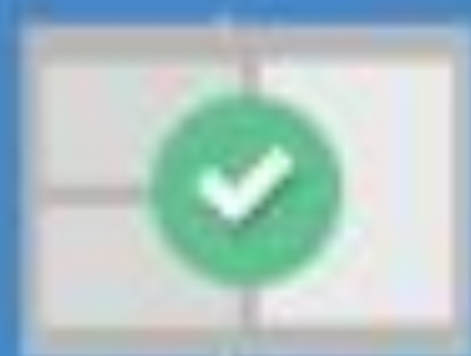
1 Complete a feature and submit a pull request.



2 Probo creates a build which can be viewed in github or stash.



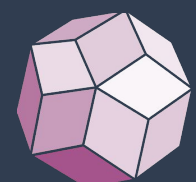
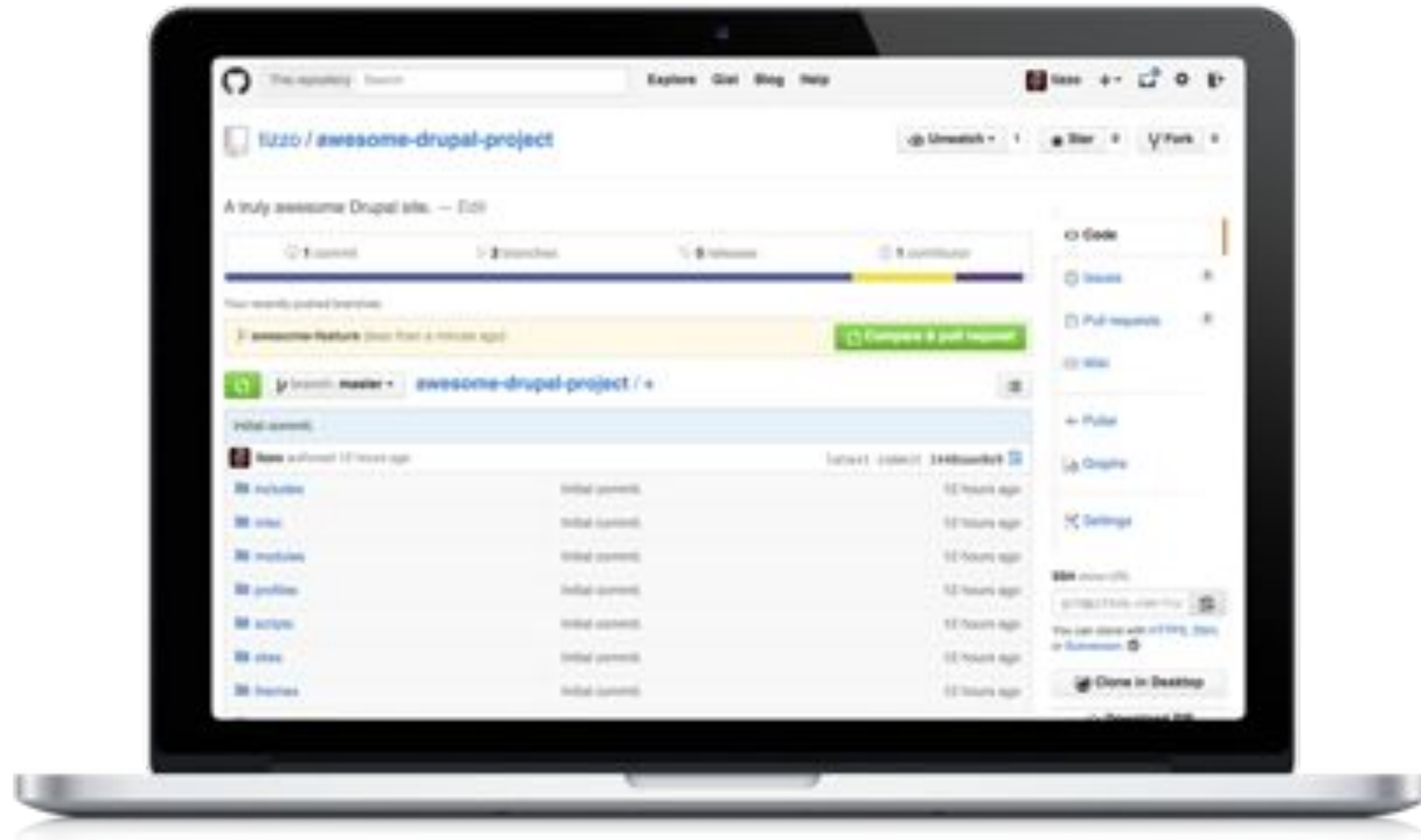
3 If all tests pass, it's ready for review. Send it on to your project lead.

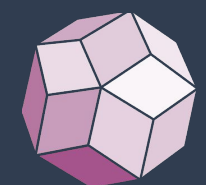


4 Project leads review results and can merge changes with a single button.

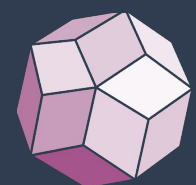


Github & Bitbucket Integration

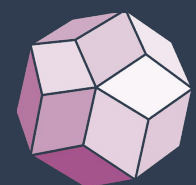




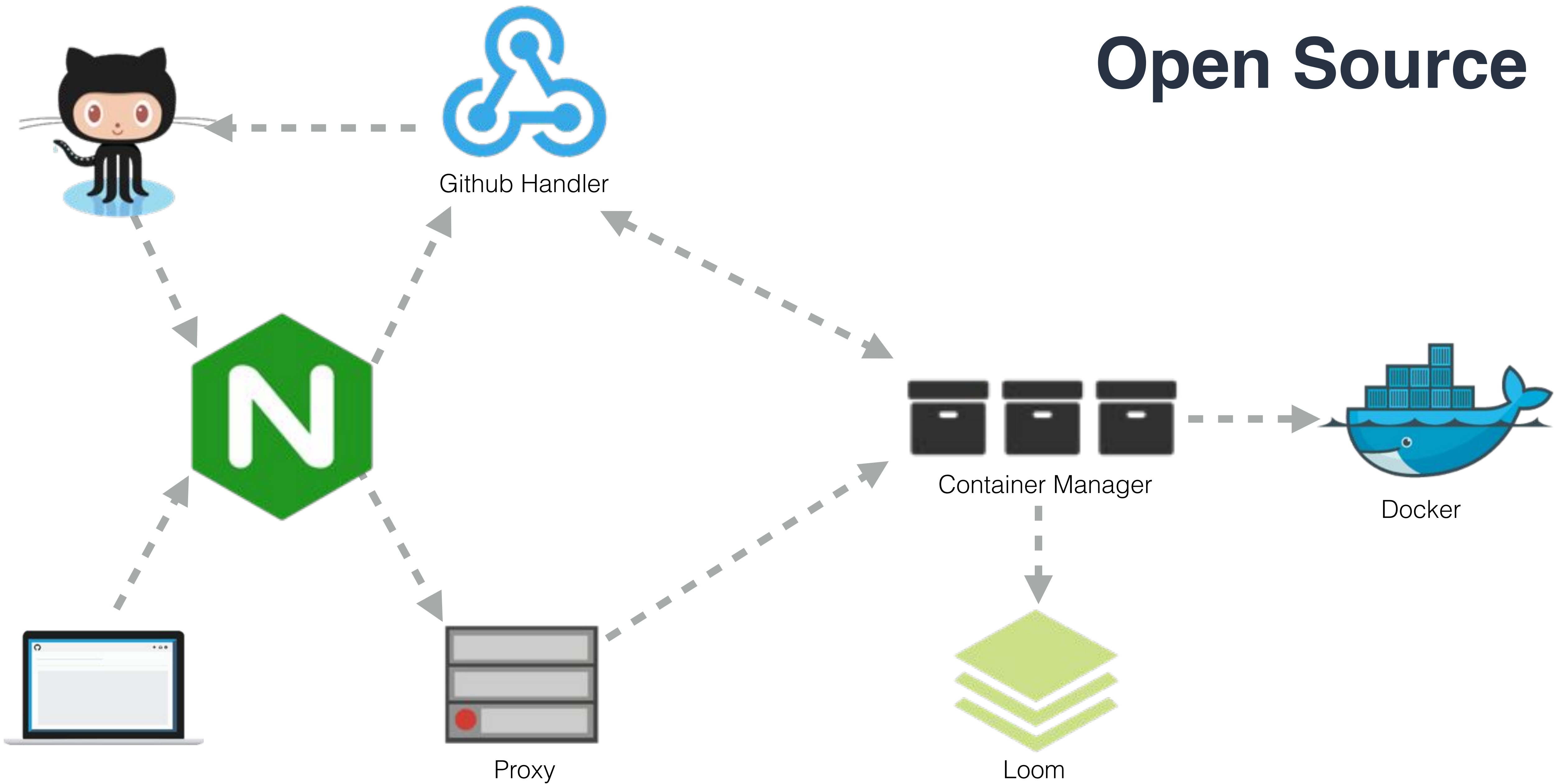
We run Fat Containers



**Let's call it a
MACRO Service**

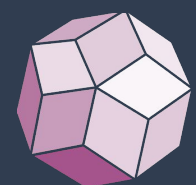


Open Source

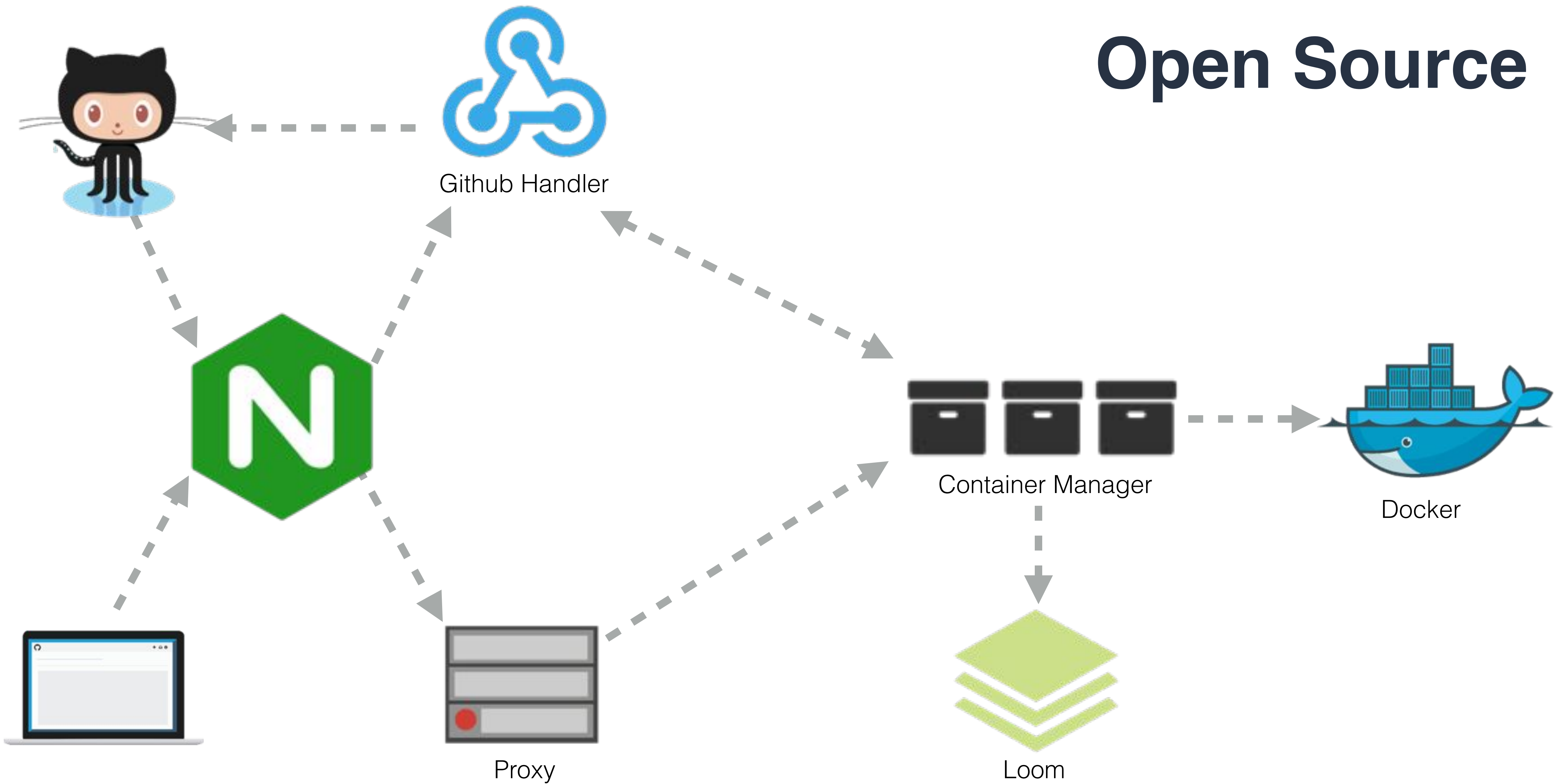


Run it yourself!

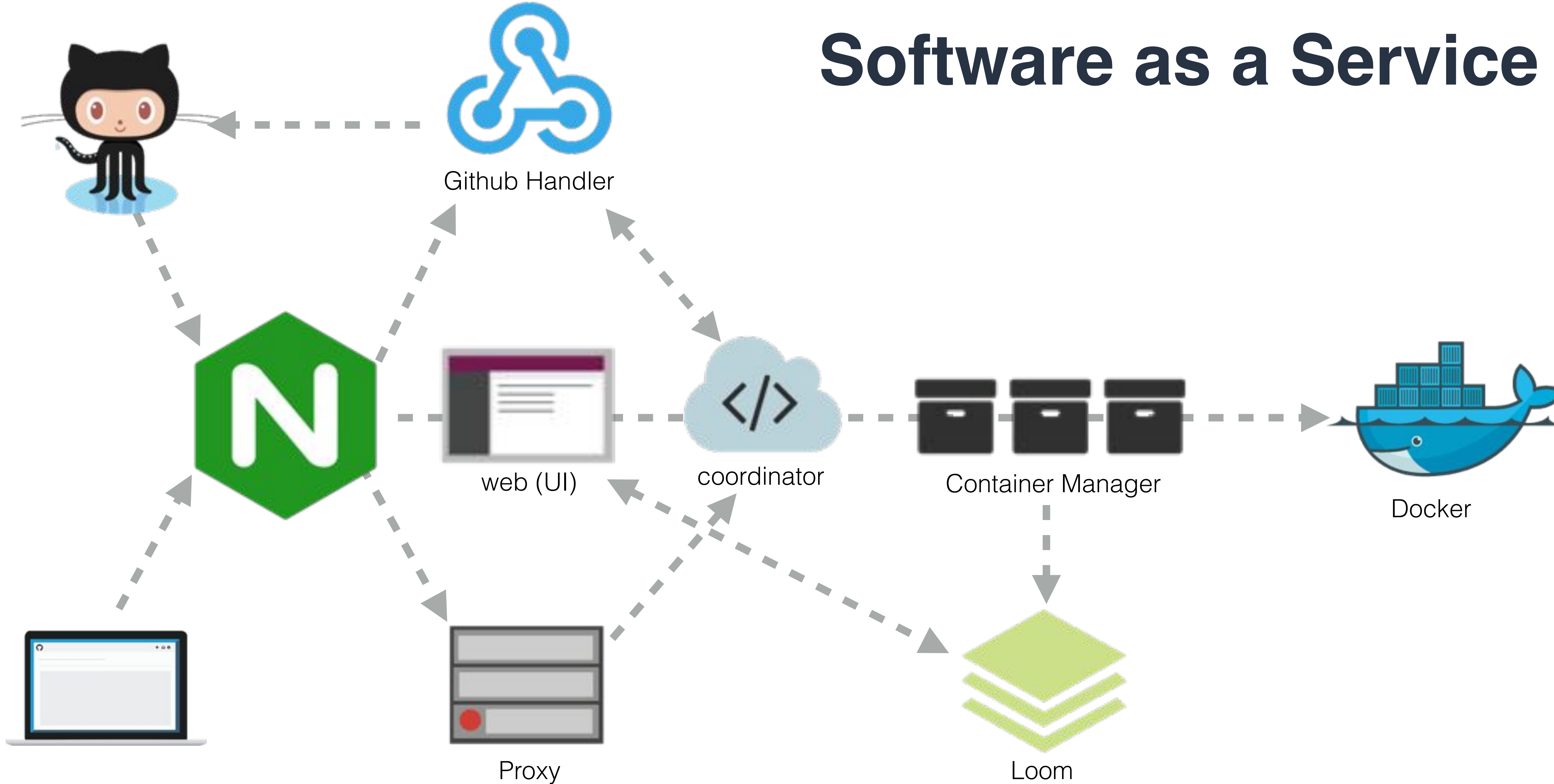
Checkout the QUICKSTART.md
github.com/ProboCI/probo



Open Source

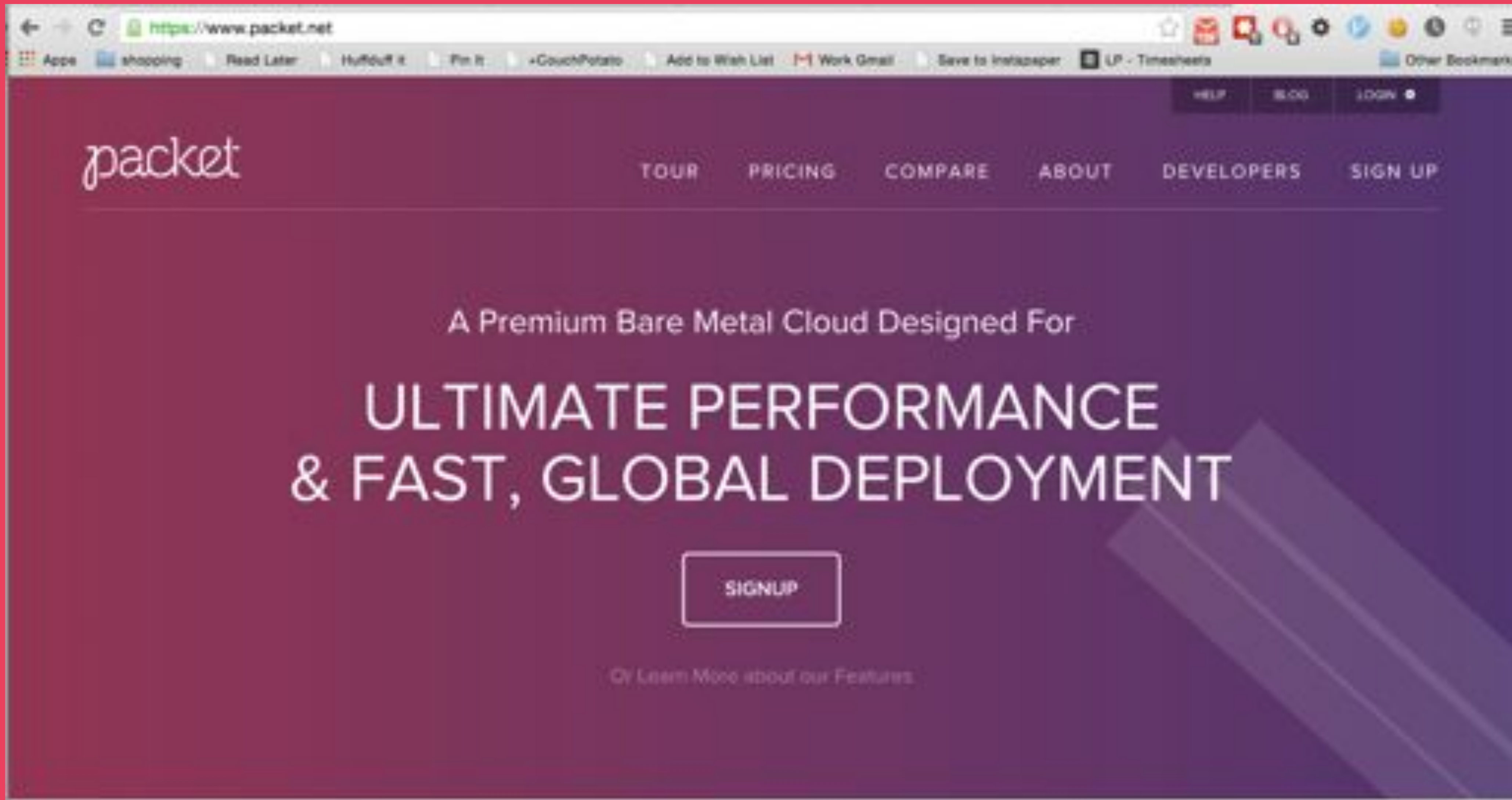


Software as a Service



packet





The image shows a browser window displaying the Packet website. The browser's address bar shows the URL <https://www.packet.net>. The website has a dark blue background with the Packet logo in the top left. A navigation menu in the top right includes links for HELP, BLOG, and LOGIN. A secondary navigation menu below it includes TOUR, PRICING, COMPARE, ABOUT, DEVELOPERS, and SIGN UP. The main content area features the text "A Premium Bare Metal Cloud Designed For" followed by the large headline "ULTIMATE PERFORMANCE & FAST, GLOBAL DEPLOYMENT". Below the headline is a white "SIGNUP" button and a link that says "Or Learn More about our Features".

packet

HELP BLOG LOGIN

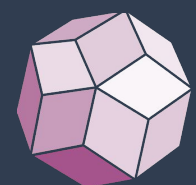
TOUR PRICING COMPARE ABOUT DEVELOPERS SIGN UP

A Premium Bare Metal Cloud Designed For

ULTIMATE PERFORMANCE & FAST, GLOBAL DEPLOYMENT

[SIGNUP](#)

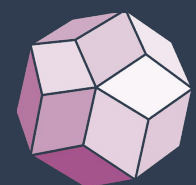
[Or Learn More about our Features](#)



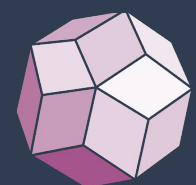
<https://app.probo.ci>

We're in public beta,
get started today!

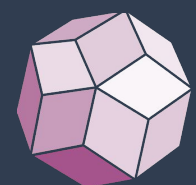
Continuous Integration



Continuous Delivery



Continuous Deployment



Thank you!

