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Эффективная разработка и сопровожден ие Ansible- ролей

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Ansible in a nutshell

- Configuration managements
- Released in 2012
- Acquired by Red Hat in 2015
- Developed in Python
- DSL – YAML
- Templates – Jinja
- Web-UI, central management – Ansible Tower



Ansible in a nutshell

- **Inventory**
- Task
- Handlers
- Template
- Playbook
- Role

```
---  
all:  
  hosts:  
    mail.example.com:  
  children:  
    webservers:  
      hosts:  
        foo.example.com:  
        bar.example.com:  
    dbservers:  
      hosts:  
        one.example.com:  
        two.example.com:  
        three.example.com:
```

Ansible in a nutshell

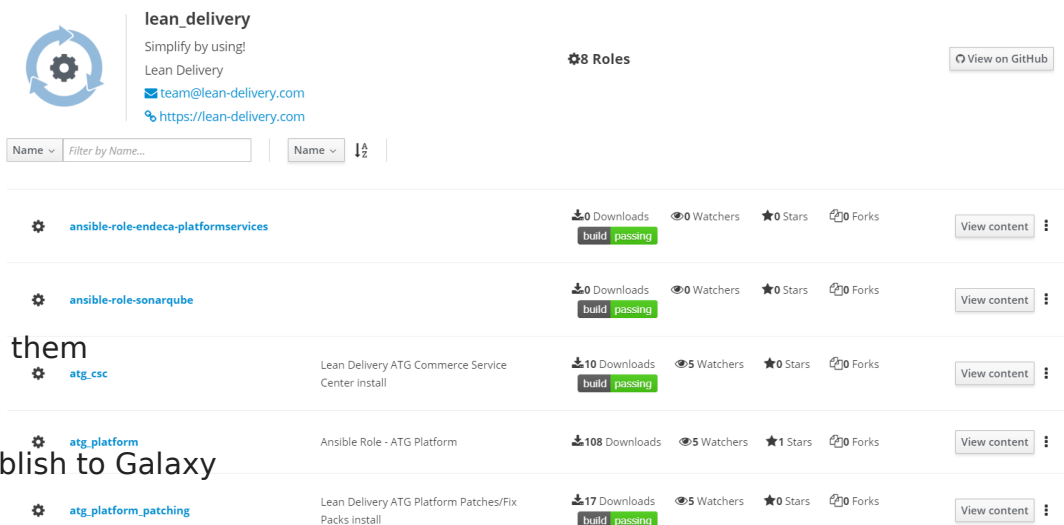
- Inventory
- Task
- Handlers
- Template
- **Playbook**
- Role

```
---
- hosts: webservers
  tasks:
    - name: ensure apache is installed
      yum:
        name: httpd
        state: present
    - name: write the apache config file
      template:
        src: /srv/httpd.j2
        dest: /etc/httpd.conf
      notify:
        - restart apache
  handlers:
    - name: restart apache
      service:
        name: httpd
        state: restarted
```

Life, the Galaxy and Everything






- Ansible role
- Role sources
 - From Galaxy
 - From SCM (include private SCM)
- Create your own
- Describe galaxy and how to install role from them
- Get example how to get role from SCM
- Get example how to create new role and publish to Galaxy

Community Authors > lean_delivery



lean_delivery
Simplify by using!
Lean Delivery
team@lean-delivery.com
https://lean-delivery.com

8 Roles [View on GitHub](#)

Name	Filter by Name...	Name	↓	↕			
 ansible-role-encoda-platformservices		0 Downloads	0 Watchers	0 Stars	0 Forks	View content	
 ansible-role-sonarqube		0 Downloads	0 Watchers	0 Stars	0 Forks	View content	
 atg_csc		Lean Delivery ATG Commerce Service Center install	10 Downloads	5 Watchers	1 Stars	10 Forks	View content
 atg_platform		Ansible Role - ATG Platform	108 Downloads	5 Watchers	1 Stars	10 Forks	View content
 atg_platform_patching		Lean Delivery ATG Platform Patches/Fix Packs install	17 Downloads	5 Watchers	0 Stars	10 Forks	View content



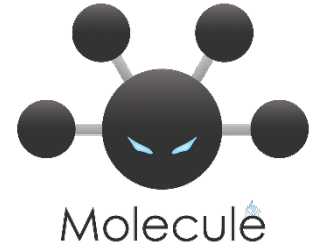
New role initialization with using **ansible-galaxy**

```
$ ansible-galaxy init ansible-role-demo
```

```
.
├── defaults
│   └── main.yml
├── files
├── handlers
│   └── main.yml
├── meta
│   └── main.yml
├── README.md
├── tasks
│   └── main.yml
├── templates
├── tests
│   ├── inventory
│   └── test.yml
└── vars
    └── main.yml
```

Molecule, Lint and Testinfra

- 150 roles in support -> migration to GitHub
- YAML lint
- Ansible lint
- Custom Ansible lint rules
- Molecule
- Molecule drivers: Azure, Delegated, Docker, EC2, GCE, LXC, LXD, Openstack, Vagrant
- Molecule stages (lint, destroy, dependency, syntax, create, prepare, converge, idempotence, side_effect, verify, destroy)



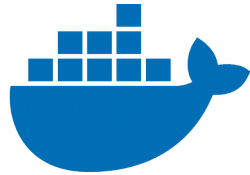
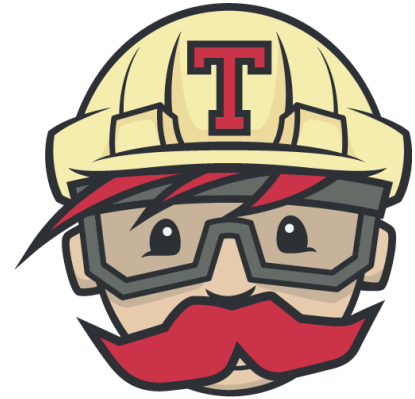
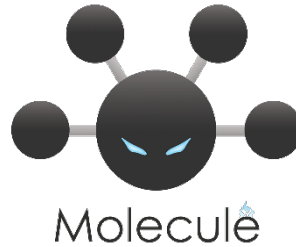
New role initialization with using **molecule**

```
$ molecule init role -r ansible-role-demo
```

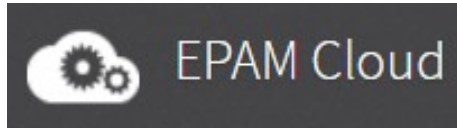
```
├── defaults
│   └── main.yml
├── handlers
│   └── main.yml
├── meta
│   └── main.yml
├── molecule
│   └── default
│       ├── Dockerfile.j2
│       ├── molecule.yml
│       ├── playbook.yml
│       └── tests
│           └── test_default.py
├── README.md
├── tasks
│   └── main.yml
└── vars
    └── main.yml
```


Travis-CI, GitLab CI, Whatever CI

- CI using Travis-CI and molecule + docker as engine (and web hook for galaxy publishing)
- GitLab CI for GitHub
- GitLab CI private runners
- EPAM Cloud Ansible Module

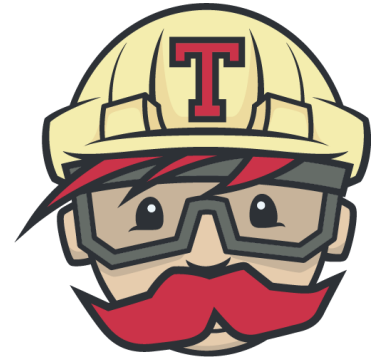


docker



.travis.yml

```
---
dist: xenial
sudo: required
language: python
python:
  - "2.7"
services:
  - docker
install:
  - pip install --upgrade ansible==2.5.7 ansible-lint docker-py molecule
script:
  - ansible-lint -c .ansible-lint `find . -regex ".*\.(yml\)"`
  - molecule test -s default
notifications:
  webhooks: https://galaxy.ansible.com/api/v1/notifications/
```

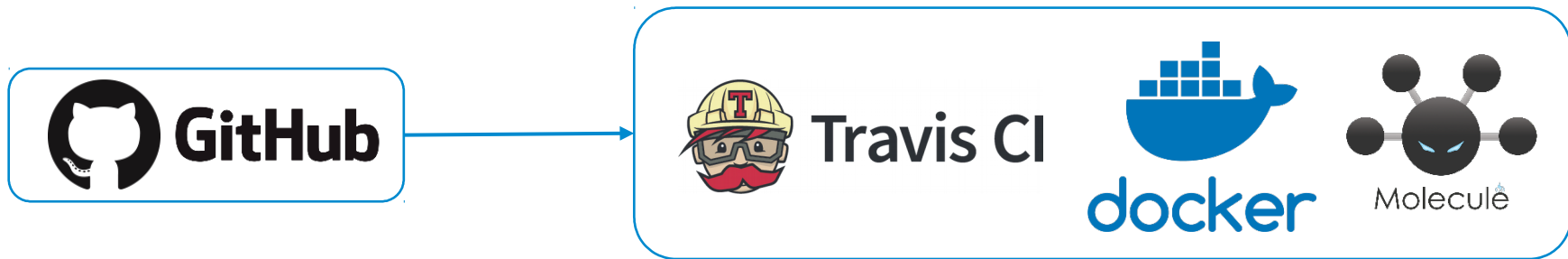


.gitlab-ci.yml

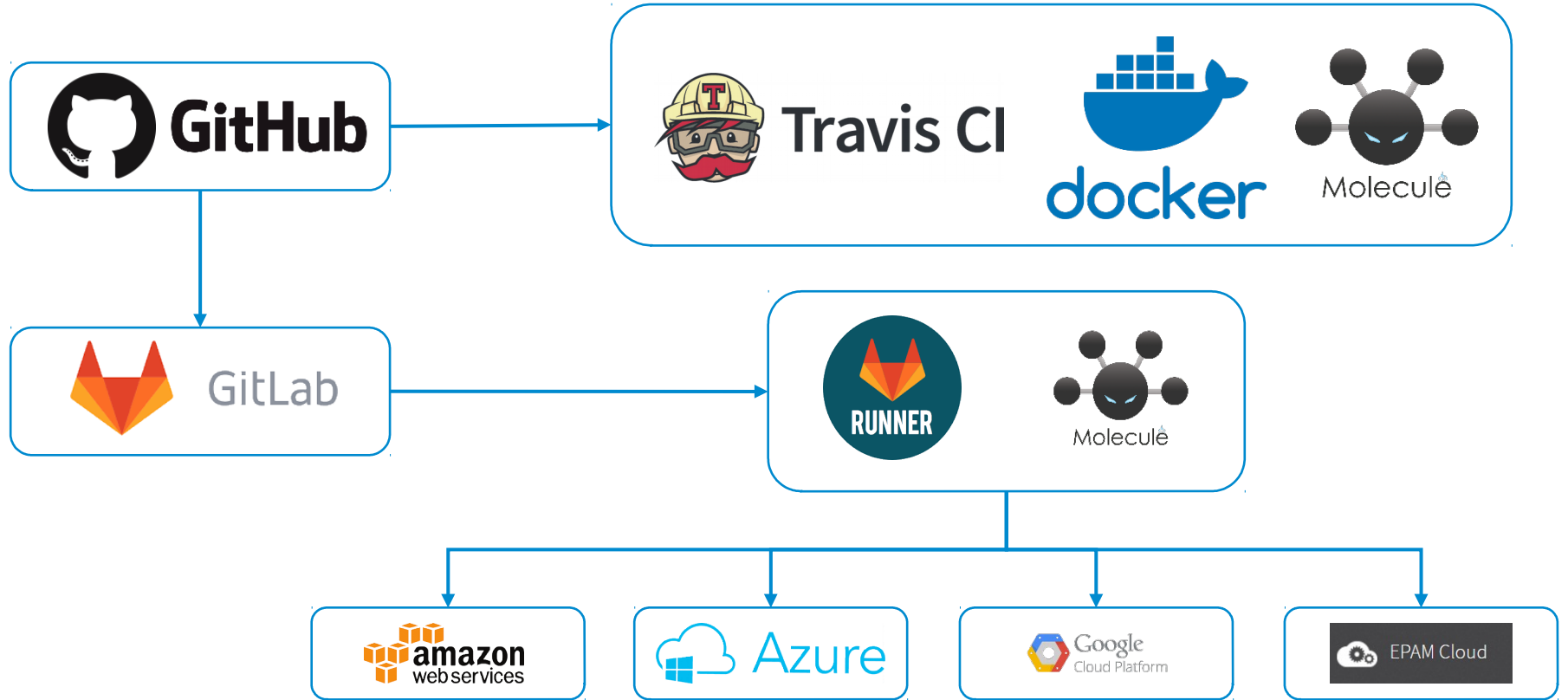
```
---
stages:
  - deployment test
variables:
  GET_SOURCES_ATTEMPTS: "5"
AWS:
  variables:
    EPC_REGION: AWS-EUCENTRAL
  stage: deployment test
  script:
    - molecule test -s cloud-aws-delegated
  tags:
    - delegated
```



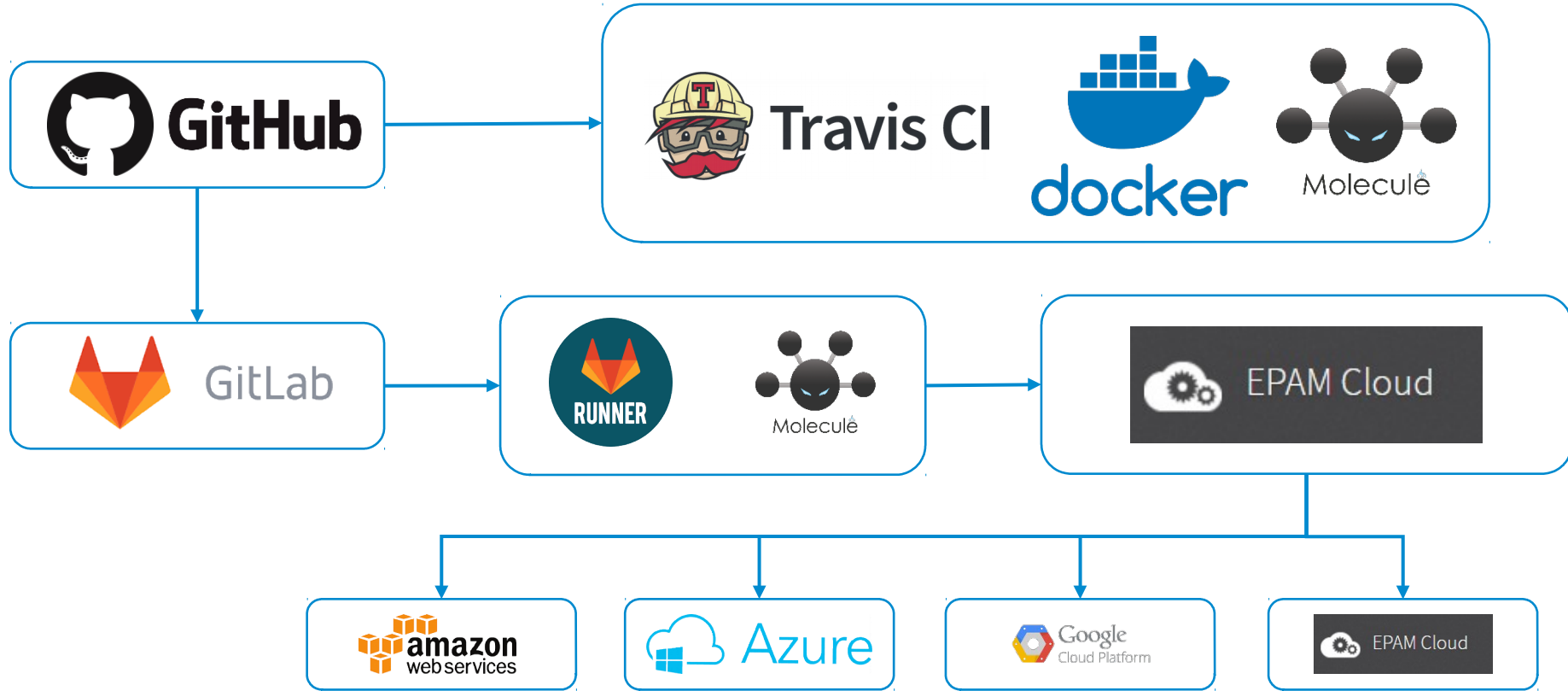
Short CI




Full CI



Full CI



CI



Lean Delivery

Simplify by using!

<https://lean-delivery.com> team@lean-delivery.com

Repositories 20 **People** 25 **Teams** 1 **Projects** 1 **Settings**

Search repositories... **Type: All** **Language: All**

<https://github.com/lean-delivery/>

https://galaxy.ansible.com/lean_delivery/

cookiecutter-ansible-role

Cookie cutter recipe to create Ansible roles.

● Python ★ 1 📄 Apache-2.0 Updated Aug 24, 2018

docker-systemd

Docker images with systemd support

📄 Apache-2.0 Updated Aug 24, 2018



Some checks haven't completed yet

2 pending checks



ci/gitlab/develop Pending — Pipeline running on GitL...

[Details](#)



continuous-integration/travis-ci/push Pending — Th...

[Details](#)

New role initialization with using **cookiecutter**

```
$ cookiecutter --url https://github.com/lean-delivery/cookiecutter-ansible-role
```

```
.
├── .ansible-lint
├── defaults
│   └── main.yml
├── .github
│   └── ISSUE_TEMPLATE
│       ├── bug_report.md
│       ├── documentation_report.md
│       └── feature_request.md
├── .gitignore
├── .gitlab-ci.yml
├── handlers
│   └── main.yml
├── LICENSE
├── meta
│   └── main.yml
```

```
.
├── molecule
│   ├── cloud-aws-delegated
│   │   ├── molecule.yml
│   │   └── playbook.yml
│   ├── cloud-epc-delegated
│   │   ├── molecule.yml
│   │   └── playbook.yml
│   └── default
│       ├── Dockerfile.j2
│       ├── molecule.yml
│       └── playbook.yml
└── resources
    └── provisioning
        ├── create.yml
        ├── destroy.yml
        └── prepare.yml
```

```
.
├── README.md
├── tasks
│   └── main.yml
├── templates
│   └── .gitkeep
├── .travis.yml
├── vars
│   └── main.yml
└── .yamllint
```

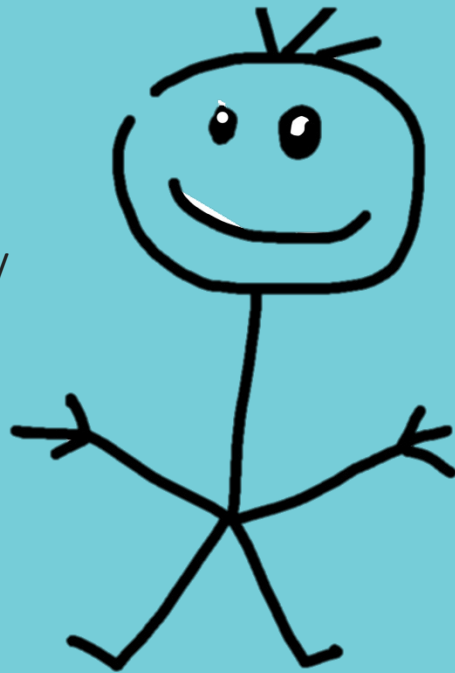


GitHub

<https://github.com/kharkevich/>
<https://github.com/lean-delivery/>

A GALAXY

<https://galaxy.ansible.com/kharkevich/>
https://galaxy.ansible.com/lean_delivery/



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