

A deep dive into one of the applications of DC/OS: CI/CD

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Paris Container Day

29th June

Paris

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Bios

Philip Norman

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Works on Marathon, Chronos, and the DC/OS

Continuous integration fan



Frank Scholten

Senior Software Engineer at Container Solutions

R&D in the Docker, Mesos & container ecosystem

Creator of minimesos



Agenda

- Introduction to minimesos
- Demo - run Mesos Elasticsearch on minimesos
- Introduction to DC/OS
- CI/CD DC/OS workshop
 - **Please work in pairs or groups**





minimesos



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What is minimesos?





- Experimentation and testing tool for Apache Mesos
- Instant Mesos cluster on your laptop
- CLI and Java API
- Runs in Docker
- Sponsored by



minimesos

The story behind minimesos



- CS contributed to  MANTL by 
- The Mesos ELK stack on Mesos is a core piece
- Developing & testing distributed systems is hard...



<http://container-solutions.com/orchestrated-machine-containerpilot-minimesos-travelling-orchestration>

Mesos framework development



mesos/kibana



mesos/elasticsearch



mesos/logstash



Build



Deploy



Test



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Mesos framework development



mesos/kibana



mesos/elasticsearch



mesos/logstash



Build



Deploy



Test



Long development feedback loop!

Mesos framework development



Build, run and test using minimesos locally



mesos/kibana



mesos/elasticsearch



mesos/logstash



minimesos



Deploy



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minimesos demo



More information



- <https://github.com/containersolutions/minimesos>
- Twitter @minimesos @Frank_Scholten @adamsandor2
- Mailinglist <https://groups.google.com/d/forum/minimesos>
- minimesos in a browser <https://minimesos.org/try>





DC/OS



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DC/OS



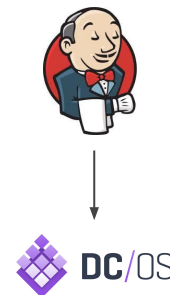
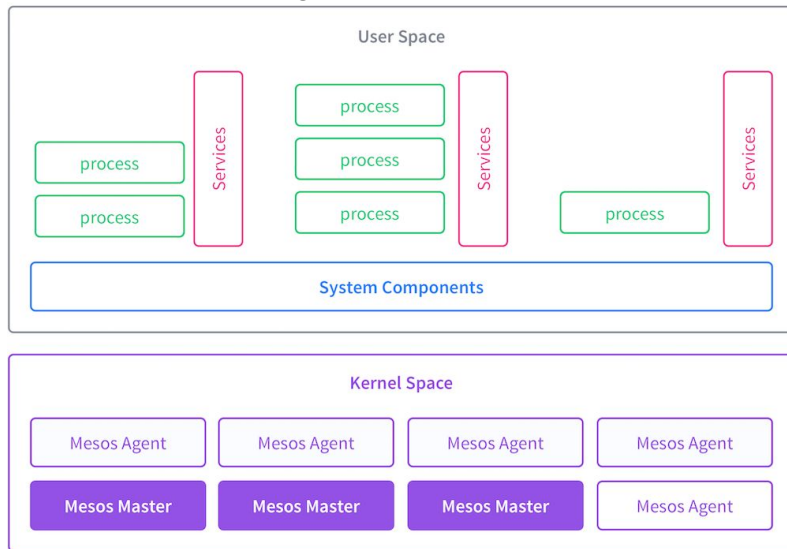
- DC/OS is the Datacenter Operating System
- Is a FOSS product based on Apache Mesos
- Comes with an 'App Store'
 - One-click Jenkins install
 - Do everything on one cluster





Jenkins & DC/OS

- Jenkins is a DC/OS User Space **Service**
- Each Jenkins job is a DC/OS **Process**



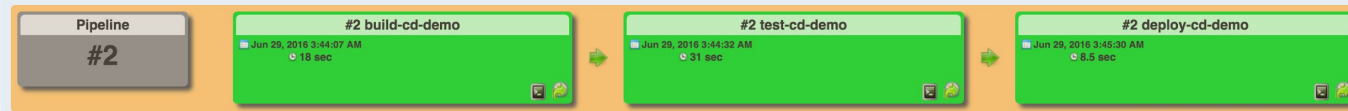


Github, Jenkins & DC/OS

- We poll / hook from Github
- Test and build on SCM change
- Deploy new config to Marathon on DC/OS



Build Pipeline





DC/OS CI/CD Workshop





Workshop - Check out DC/OS

- If you have Vagrant installed, you can use the USB stick to try out CI/CD on DC/OS.
- We're going to:
 - add a post to a blog with git
 - build a Docker image with Jenkins
 - deploy it to Marathon with Jenkins



DC/OS



Workshop - Check out DC/OS

- Import the vagrant box from the USB stick:
- `$ vagrant box add dcos-ci-cd.box \`
`--name dcos-ci-cd`
- `$ vagrant init dcos-ci-cd`
- `$ vagrant up`



DC/OS

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Workshop - Check out DC/OS

- `$ vagrant ssh`
- `$ cd cd-demo`
- `$ vi site/_posts/
2016-06-29-title.markdown`
- `$ git commit -am "My Article"`
- `$ git push origin master`





Workshop - Check out DC/OS

- We'll merge all our changes, and watch the Jenkins build working...
- `$ dcos marathon app show \`
`/jenkins-deployed-app`
- Et voilà!





DC/OS - Resources

- @dcos @ApacheMesos @philipnrmn
- <https://dcos.io>
- <https://github.com/dcos>
- DC/OS Community Slack



DC/OS



Questions?



Thank you!