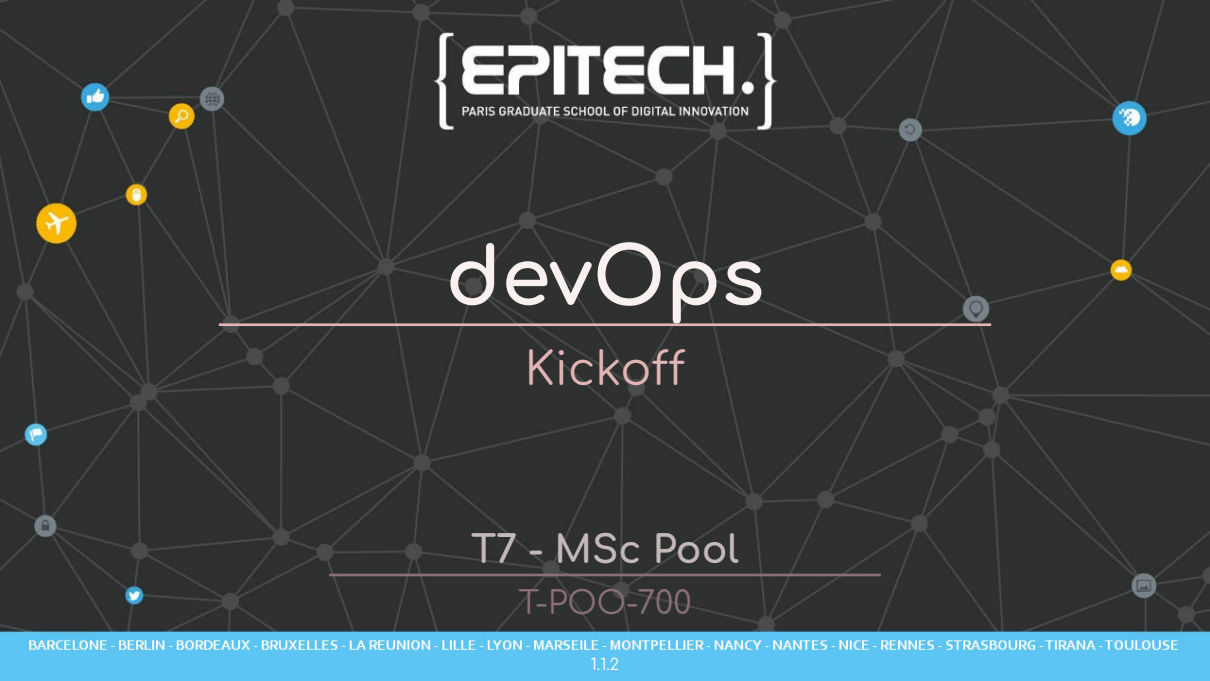


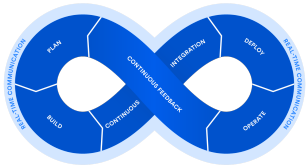
devOps

Kickoff

T7 - MSc Pool

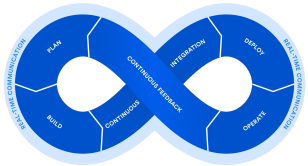
T-POO-700

DevOps


PLAN
CODE
BUILD
CONTINUOUS
INTEGRATION
DEPLOY
OPERATE
CONTINUOUS FEEDBACK
REAL-TIME COMMUNICATION
REAL-TIME COMMUNICATION

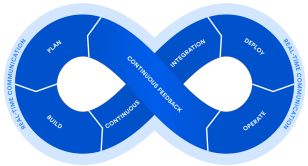
DevOps

- Systemic thinking



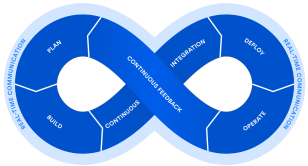
DevOps

- Systemic thinking
- Cross-communication



DevOps

- Systemic thinking
- Cross-communication
- Adapted tools to a new operation mode



DevOps

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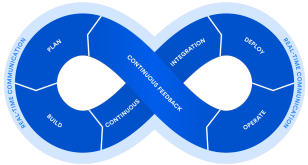
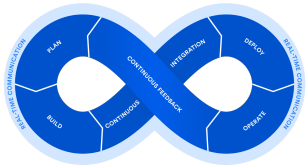
- Adapted tools to a new operation mode
- Bridge between development and operational teams



DevOps

- Systemic thinking
- Cross-communication
- Adapted tools to a new operation mode
- Bridge between development and operational teams
- Derived from the rejection of the traditional development model



Architecture Micro-services

- Break up monolithic projects into several logical and separate parts

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- Modular

Docker

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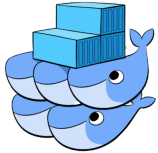
- Allows to standardize

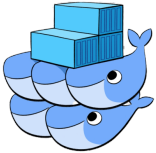
Orchestrators

kubernetes



Orchestrators

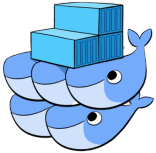
kubernetes



- Horizontal scalability

Orchestrators

kubernetes



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Orchestrators

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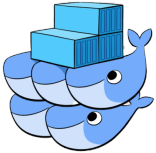

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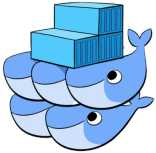

- Horizontal scalability
- Load-balancing
- Automating
- The developer no longer has to worry about the operational side at any level

Pipelines

Travis CI

GitLab

Azure Pipelines

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- Part of the principle of continuous integration

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- Integrates with most git services naturally (Gitlab, Github)

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- Typical steps of a pipeline: build, test, deploy

Travis CI

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Azure Pipelines

Monitoring

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- Global vison

elastic stack

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- Real-time metrics (server, pods, applications, etc.)

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- Immediate notification as soon as a problem arises
- A lot of monitoring tools exist
- In a Kubernetes
  stack, Prometheus and Elastic Stack are the most popular tools

elastic stack

To go further

sonarqube

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- This kick-off is only a (very) short presentation of some devops tools

sonarqube

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sonarqube

To go further

- This kick-off is only a (very) short presentation of some devops tools
- The devops and its tools are in perpetual evolution
- SonarQube is a good addition to your devops architectures. It allows you to continuously inspect and analyze the quality and consistency of the code of a project.

sonarqube

Any questions

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