Development of VISA at ILL

16th September 2022 – Ludovic Leroux

Agenda

- Developing VISA: overview of different tasks

- ILL Development workflow for VISA

- Total Cost of Ownership (TCO)

- The good / The bad / The ugly

- Questions for the future

Developing VISA: overview of different tasks

- Installation (VISA / OpenStack / OS Images) - 3 different profiles

- Maintenance: application and OS Images (easy) - nodes issues (complex)

- Development: new features

- Users Support (currently made by developers)

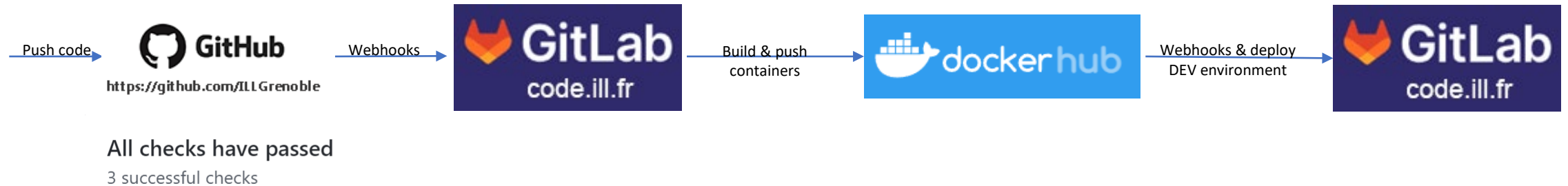- Communication (new versions, issues or maintenances period)

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ILL Development workflow for VISA

- Example of an application feature

Backend   Frontend   Database/Request

Push code → GitHub https://github.com/ILLGrenoble — Webhooks → GitLab code.ill.fr — Build & push containers → docker hub — Webhooks & deploy DEV environment → GitLab code.ill.fr

All checks have passed
3 successful checks

- Warning for future developments: the database model

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Total Cost of Ownership (TCO)

- VISA is not only a software:
  - need decent cloud infra (openstack=> 2 controller nodes + 8 compute nodes ~ 200k€)
  - need some integration (ETL, authorization)
  - need effort to create scientific environment (VM Image + scientific software)
  - need time and skills for maintenance/support
  - need communication with your users (takes time)

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The good / The bad / The Ugly

- Pure development (Stuart+1), Users satisfaction

- Support not industrialised

- Future developments aren't financed: how to keep going?

Questions for the future

VISA is ready for production

- How to obtain a consensus on future developments?

- How to handle specific developments?

- How to collaborate on developments/avoid forks?

- How to communicate between VISA IT teams?

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Thanks

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