YGREKY

A DevOps Journey using the Yocto Project

How we have set up a learning environment with CephFS, shared state and a horde of virtual machines

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About us

YGREKY

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Wanted to teach a course using the YP

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- Short: one or two weeks
  - Machine setup time
  - Various distros and configurations on audience machines
- Online
  - Shipping hardware - not practical
- On budget
  - Build machines with 24+ cores + big disk space: expensive!
- With multiple YP versions
  - Following the upstream is an essential security process, won’t skip it

YP features we could use

- Shared download dir
  - Guaranteed package versions (and source archive versions)
- Shared sstate
  - Dramatic build time reduction
- Automated build with kas et al
  - Kas templates allowing assembly of a “reference” answer

Checklist

Technical overview

What we have learnt from our live session

In the future

Technical overview

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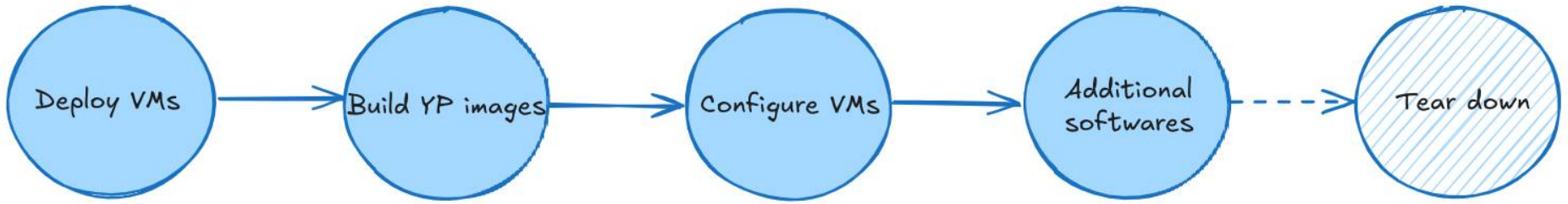
- All-in-one solution
  - One GitLab pipeline per session



Technical overview

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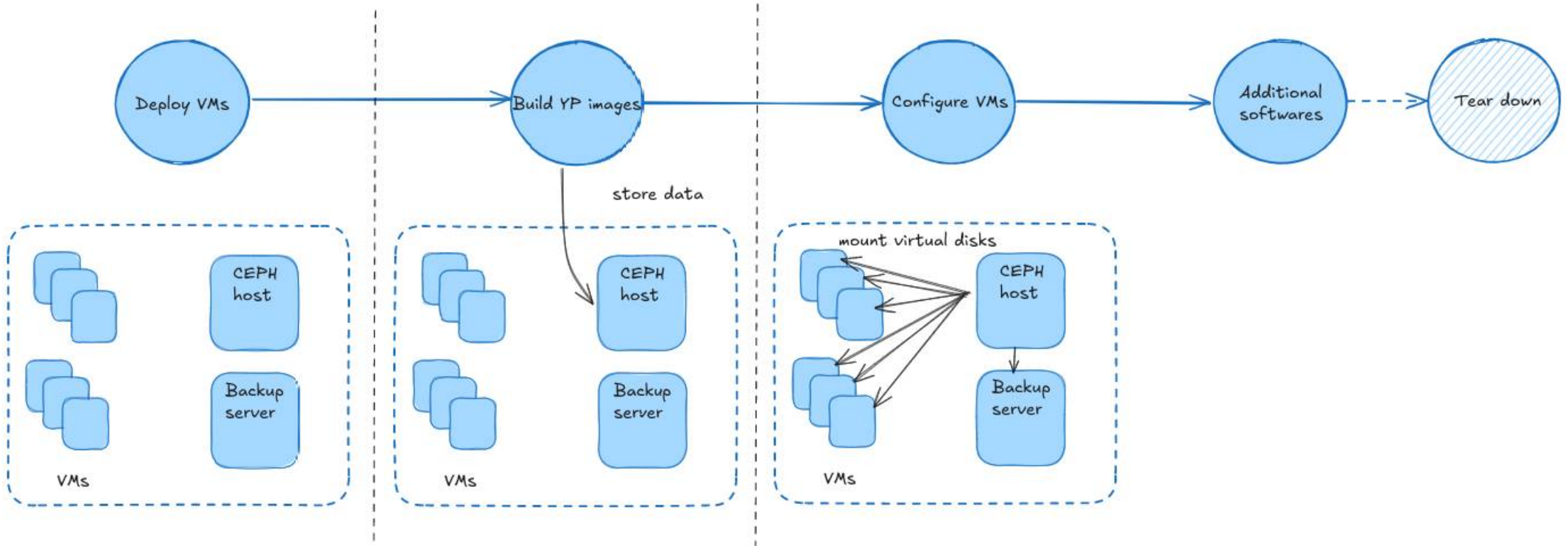
- Distribution of data
  - How we used CEPHfs



What we have learnt from our live session

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- Managing disk space overload
- Shared sstate
  - Incompatible sstate between YP versions
  - Recomputing packages between different distro

In the future

- Solution to manage sstate
  - ✔ Keep backup ready to be redeployed
  - ✔ Allocate more computing resources to VMs
  - ✔ Find a way to keep ‘pinned’ sstate items (not removed)
- Better (higher) estimate the disk space consumption

Questions?

Checkout our project at :

https://gitlab.com/syslinbit/public/virtuallabs