Feedback on our integration to the EGI Cloud Federation

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May 8, 2019
Summary

The UNIV-LILLE site
  Presentation
  History

The cloud platform

The certification process

Conclusion
• Computing center founded in 2000
• Providing computing resources to regional researchers
• Composed of 3 complementary platforms (HPC/HTC cluster, OpenStack cloud, storage for scientific data)
• 372 active users
• 2 engineers to operate the computing center
• For more information, see hpc.univ-lille.fr (only in french)
Summary

The UNIV-LILLE site

The cloud platform
  Resources
  Use-cases
  Back in EGI

The certification process

Conclusion
- OpenStack Queens on CentOS 7 (x86_64)
- 748 cores, 12 TB mem (with 48 physical cores / 576 GB mem reserved to EGI for now)
- Testbed for controller components integration/upgrade testing
- Upgrade to Rocky coming soon...
Use-cases

- Bioinformatics appliances: Galaxy, custom toolchains, etc.
- Humanities and social sciences: Hadoop, Spark
- Research in computer science: big data, cryptography, algorithmic, etc.
- Scientific portals hosting: GBIF (www.gbif.fr), Vidjil (www.vidjil.org)
- First publications:
  - doi.org/10.3390/genes10030206
  - dx.doi.org/10.13154/tosc.v2018.i1.254-276
  - doi.org/10.1111/mec.14229
  - ...

No more skills to maintain local EGI services following the departure of an engineer
EGI grid nodes decommissioned in 2014
New federated OpenStack cloud (France Grilles) in 2015
Wish to integrate the EGI federated cloud but UNIV-LILLE site no longer certified
EGI RC Certification started in October 2018
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  Where to start?
  Barriers

Conclusion
Where to start?

- Participate to Grid Computing administration (X509, BDII, ...)
- Get assistance from NGI-FR (France Grilles)
- Find and read all required documentations, and beginning...
• Some parts of documentation are missing (still in redaction at the time of integration)
• Necessity to use both the historical and the new documentation (egi-federated-cloud-integration.readthedocs.io)
• Some faulty automatic procedures (like GOCDB/ARGO-MON interfacing)
• 8 tickets concerning our integration on GGUS, with different issues like ungranted access to AppDB images lists or some old versions of monitoring probes ( #137751, #139182, #139314, #140156, #140315, #140542, #140571, #140996)
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- Some issues highlighted thanks to the integration
- Better personal knowledge of EGI operation after integration
- Proud to be back in EGI!
- Now planning integration to IFB french federation
Thanks for your attention.