

Medium term plan for a robust increase of the
Virgo computing resources use

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Problem is ...

...to run workflows on CNAF environment

Issue:

- Scheduler (condor, lsf)
- Shared file-system (glusterfs, nfs3/4)
- Every workflow has different difficulties

Possible solutions:

- adapt workflow:
 - Soft (only some configuration)
 - Heavy (changing code)
- adapt CNAF network
 - Dynamic (openstack)
 - **Static**

Medium term plan

- Porting as many workflows as possible to actual cnaf
- Split cnaf machines into two parts:
 - ➔ A Ligo-like one
 - ➔ A cnaf-like one
- Use cnaf as a Ligo farm for remaining workflows...
- ...but a static solution is not optimal
- Agree on a common infrastructure

Collect Informations:

- Which workflow could raise issue? Why?
- No other solutions possible ???

Done and ToDo

To configure a qemu Ligo-like machine(s)

Already done:

- 2 virtual machines ScientificLinux 6.7
- Ligo software
- Condor
- Shared folder (nfs)
- Copied CWB lib dependencies (many thanks to Gabriele)
- Basic test of CWB

Missing:

- Run a complex workflow test
- Cwb with condor_submit
- Writing a document with CNAF actual configuration

References

- <https://www.lsc-group.phys.uwm.edu/daswg/projects/virtualmachine.html>
- <https://wiki.ligo.org/DASWG/WebHome>
- <https://atlas3.atlas.aei.uni-hannover.de/~waveburst/doc/cwb/ref/>
- http://wiki.qemu.org/Main_Page