Discussion on Cascina farm upgrades

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Why running NM @ Cascina?

- Although part of the Noise Monitors (NM) pipelines do not require low latency access to the data, there are many reasons in favor of running them at Cascina and not in the “offline” CC. Let’s try to discuss them:
  - NMs were conceived to produce results useful for commissioning, noise hunting, DQ assessments during physics runs. Results should be available on web pages, files and databases accessible through NMAPI scripts, and the most “natural” place to store and access everything is in Cascina.

Why running @ Cascina?

- Offline CCs are dedicated to pure offline analysis with high computational requests, and in share with other experiment.
- Offline CCs are not solely Virgo centers. In Cascina we have full support, elsewhere we should ask for it (for instance to set up DB or www servers, or in case of troubles…)

Why Batch System @ Cascina?

- Tools like NoEMi would surely benefit
  - Already tested on LIGO (Condor) with O(100) channels, all is needed is a couple of simple scripts!
  - Easily scalable
- Resources are allocated dinamically
  - unlike the case of pipeline-dedicated nodes, if a node has problems it can be put offline, processes run on available nodes
  - No waste of resources if the pipeline runs for few hours
- Batch system straightforward to install, even on a small fraction of the available nodes

Why Batch System @ Cascina?

- Other NM pipelines in developement would likely benefit of a Batch System
- We have started to think how to connect NoEMi results with the new non-linear pipelines
  - Idea: run non-linear tools on the list of daily lines found by NoEMi
  - E. g. correlation studies with aux channels found by NoEMi, non-linear correlations studies for lines without aux channels
  - Launch of processes on the list of found lines (‘dynamically’, depending on the daily results)

Conclusions

We would like to ask to install a batch system in the Cascina cluster, on a subset of the free available nodes, to keep on with the development and tests of the Noise Monitors for Adv Virgo