



# Simplifying Configuration

Ricardo Rocha

( on behalf of the LCGDM team )



EMI INFISO-RI-261611





# Why?

- EMI is about to end
- With it... YAIM support becomes even harder
  - It was never easy...
- But it's still (by far) the number one option
  - Especially at smaller setups, but also in larger ones
  - Mostly (I think) because we don't provide an easy solution for a non-centrally managed configuration
- We should look now at our options for the future
  - And take the chance to improve the process as we're on it?



# What we need?

- Large setups will never be a problem
  - They will keep their own configuration solution
  - They have the knowledge... and share it (see Quattor)
- Smaller sites need our help
  - Harder to have a centralized solution
  - Per machine configuration probably a better option
  - Setup / maintenance of DPM a *part time* effort
  - Learning new config management tools not an option



# Possibility 1: Keep YAIM

- YAIM is based on a set of bash scripts
- Takes care of all the functionality we need
  - Basic grid setup (CAs, mkgridmap, ...)
  - External dependencies (VOMS clients, BDII, ...)
  - Specific functions for DPM components
- Not declarative
  - We do not declare a state for the machine... we define functions to be run and entry parameters
  - Works fine for a clean setup... but many surprises later
- Can we keep it?
  - As long as the external functions are not touched...
  - Anyone taking responsibility for those?





# Possibility 2: Replace YAİM

- Can we simply forget about YAİM?
  - If we provide an alternative?
- Many options out there, some popular in WLCG sites
  - Quattor, Puppet at least
  - Means we don't have to write the *basic setup* part
- Valid solution?
  - Would need to be declarative (otherwise not much gained)
  - Can small sites move to a completely different solution?





# Possibility 2: Wrap YAIM

- In theory... the best of both worlds
- We expose the existing YAIM variables
  - Underneath we generate the templates/manifests for the configuration solution we have chosen
  - And run that tool instead
- What is needed
  - Developing a single YAIM function taking care of the conversion (not very hard)
  - Testing the solution (some additional work)
- This would leave more time for sites to start using that tool directly



- We will demo Puppet management tomorrow
- Shall we try possibility 2 with Puppet?
  - Puppet can be run locally, no need for a central instance
  - Puppet has a large and very active user base
  - Lots of documentation
  - CERN is moving to it... and the list of *free* modules we can get is already very impressive (look for *punch*)
  - Maintenance would be guaranteed
- We need a volunteer site for the testing and validation