



## Experiment Software Installation experience in LCG-2

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The management of Application and Experiment Software represents a very common issue in emerging grid-aware computing infrastructures.

While the middleware is often installed by system administrators at a site via customized tools that serve also for the centralized management of the entire computing facility, the problem of installing, configuring and validating Gigabytes of Virtual Organization (VO) specific software or frequently changing user applications remains an open issue.

Following the requirements imposed by the experiments, in the LHC Computing Grid (LCG) Experiment Software Managers (ESM) are designated people with privileges of installing, removing and validating software for a specific VO on a per site basis.

They can manage univocally identifying tags in the LCG Information System to announce the availability of a specific software version.

Users of a VO can then select, via the published tag, sites to run their jobs.

The solution adopted by LCG has mainly served its purpose but it presents many problems.

The requirement imposed by the present solution for the existence of a shared file-system in a computing farm poses performance, reliability and scalability issues for large installations.

With this work we present a more flexible service based on P2P technology that has been designed to tackle the limitation of the current system.

This service allows the ESM to propagate the installation occurring in a given WN to the rest of the farm elements.

We illustrate the deployment, the design, preliminary results obtained and the feedback from the LHC experiments and sites that have adopted it.

**Authors:** DELGADO PERIS, A. (CERN/IT/GD); SCIABA', A. (CERN/IT/GD); DONNO, F. (CERN/IT/GD); MENDEZ LORENZO, P. (CERN IT/GD); SANTINELLI, R. (CERN/IT/GD); CAMPANA, S. (CERN/IT/GD)

**Presenter:** SANTINELLI, R. (CERN/IT/GD)

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