

# Managing gLite with Quattor: Implementation and Deployment Experience

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gLite is the next generation middleware for grid computing. Born from the collaborative efforts of more than 80 people in 12 different academic and industrial research centers as part of the EGEE Project, gLite provides a bleeding-edge, best-of-breed framework for building grid applications tapping into the power of distributed computing and storage resources across the Internet. Currently, gLite is composed of more than 25 different services, implemented in different languages, using different technologies and all coming with individual configuration needs. In addition gLite can be run in multiple operational scenarios and supports presently hundreds of configuration options. Past experience has shown that configuration and management are one of the biggest challenges of such a system. As part of the investigations of ways of configuring, deploying and managing gLite, the Quattor system was tested as a candidate for large-scale installations. This presentation will discuss how the functionality provided by Quattor has been experimentally applied in the context of the internal gLite testbed management. Different aspects are described ranging from the Quattor server installation itself to the population of the Software Repository and the definition of the Configuration Database. The paper also shows how the required information can be generated automatically from the gLite configuration files and build dependencies lists in order to allow seamless integration of gLite within the Quattor system. The most challenging part, the service lifecycle management, has also been addressed. A Quattor NCM component has been developed to transform the Quattor data structures into gLite configuration files and to act on the gLite configuration scripts to reconfigure the service as information change.

The future steps and possible areas of improvements are described.

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