

A Dynamic System for ATLAS Software Installation on OSG Grid site

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ATLAS Grid production, like many other VO applications, requires the software packages to be installed on remote sites in advance. Therefore, a dynamic and reliable system for installing the ATLAS software releases on Grid sites is crucial to guarantee the timely and smooth start of ATLAS production and reduce its failure rate.

In this talk, we discuss the issues encountered in the previous software installation system, and introduce the new approach, which is built upon the new development in the areas of the ATLAS workload management system (PanDA), and software package management system (pacman). It is also designed to integrate with the EGEE ATLAS software installation framework.

In the new system, ATLAS software releases are packaged as pacball, a uniquely identifiable and reproducible self-installing data file. The distribution of pacballs to remote sites is managed by ATLAS data management system (DQ2) and PanDA server. The installation on remote sites is automatically triggered by the PanDA pilot jobs. The installation job payload connects to the EGEE ATLAS software installation portal, making the information of installation status easily accessible across OSG and EGEE Grids.

The deployment of this new system and its performance in USATLAS production will also be discussed.

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