

## Development and Setup of a Prototype System of Distributed Analysis for ATLAS Tier-2

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The ATLAS experiment currently under construction at CERN's Large Hadron Collider presents data processing requirements of an unprecedented scale. ATLAS will accrue tens of petabytes of data per year, distributed around the world: the collaboration comprises more than 1800 physicists from 150 institutions in 34 countries. The Distributed Analysis (DA) system has the goal of enabling ATLAS physicists to perform analysis on distributed data using distributed computing resources. Both data and resources are widely distributed throughout the world at CERN and at ATLAS Tier-1 and Tier-2 centers. Since DA system is of strategic importance there is a large development activity going on in this area: the ATLAS production system has been evolving to support the analysis jobs which will have a seamless access to all ATLAS resource, as well as another activities that aim to support user analysis by submitting directly to the separate grid infrastructures (Panda at OSG, direct submission to LCG and Nordugrid). The test of DA functionality will be addressed in the final Service Challenge 4 (SC4), in which the system will be exposed to the expected large number of final analysis users. The Spanish ATLAS Tier-2 facility formed by IFIC, IFAE and UAM groups, is participating in several aspects of the Distributed Analysis System. In support of the ATLAS DA activities the IFIC Tier-2 center has developed and deployed a local computational facility which comprises many service nodes, computational clusters and large scale disk and tape storage services. The resources contribute to a variety of activities such as the analysis center facility for the next SC4 in which the technical aspects of DA will be tested and evaluated. In this paper we describe the ATLAS DA as well as we present our experience with the deployment, maintenance and operation of the mentioned DA prototype from the whole ATLAS collaboration and from the framework of the Spanish Tier-2 users point of view.

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