



The creation of a Tier-1 Data Center for the ALICE experiment in the UNAM

Abstract:

The computing model used by the LHC experiments, including ALICE, is based on distributed computing using grid technologies. The group in the ICN-UNAM has participated in the computing effort for over a decade with a small Tier-2 node. In 2010, the ALICE collaboration approached our group with the suggestion to create a Tier-1 data center for ALICE, which will be part of the computing grid for the LHC (WLCG). At the moment, the data center is classified as Tier-2, with plans to become a Tier-1 candidate and eventually a full Tier-1 center.

A Tier-1 data center holds a part of the data of the ALICE experiment, which implies the following requirements: 1) sufficient bandwidth (10Gbit/s), 2) sufficient storage (starting with 1PB), 3) a backup system for the primary storage servers.

We will describe the current status of the projects, and different aspects of the path ahead to becoming a Tier-1 data center. We will also discuss past and future benefits of this project for other data-intensive projects in Mexico.