

## **CMS data transfer tests in preparation to LHC data-taking**

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The CMS Commissioning and Facilities Operations projects spawn a wide area of tasks in the overall CMS Computing activities, and aim at commissioning the overall computing system and at providing and maintaining a working distributed computing fabric with a consistent environment for the Data Operations and the users who exploit the CMS computing facilities. Concerning data transfer testing activities, in early 2007 a traffic load generator infrastructure was designed and deployed, to equip the WLCG Tiers which support the CMS Virtual Organization with a means for debugging, load-testing and commissioning data transfer routes among CMS Computing Centres. The LoadTest is based upon PhEDEx as a reliable, scalable dataset replication system. In addition, a Debugging Data Transfers (DDT) Task Force was created to coordinate the debugging of data transfer links in the preparation period and during the Computing Software and Analysis challenge in 2007 (CSA07). The task force aimed to commission most crucial transfer routes among CMS tiers by designing and enforcing a clear procedure to debug problematic links. Such procedure aimed to move a link from a debugging phase in a separate and independent environment to a production environment when a set of agreed conditions are achieved for that link. The goal was to deliver one by one working transfer routes to Data Operations. The experiences with the overall test transfers infrastructure within computing challenges as well as in daily debugging activities are reviewed and discussed, and plans for the future are presented.