ATLAS Distributed Computing: Its Central Services core

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The ATLAS Distributed Computing (ADC) Project is responsible for the off-line processing of data produced by the ATLAS experiment at the Large Hadron Collider (LHC) at CERN. It facilitates data and workload management for ATLAS computing on the Worldwide LHC Computing Grid (WLCG).

ADC Central Services operations (CSops) is a vital part of ADC, responsible for the deployment and configuration of services needed by ATLAS computing and operation of those services on CERN IT infrastructure, providing knowledge of CERN IT services to ATLAS service managers and developers, and supporting them in case of issues. Currently this entails the management of thirty seven different OpenStack projects, with more than five thousand cores allocated for these virtual machines, as well as overseeing the distribution of twenty nine petabytes of storage space in EOS for ATLAS.

As the LHC begins to get ready for the next long shut-down, which will bring in many new upgrades to allow for more data to be captured by the on-line systems, CSops must not only continue to support the existing services, but plan ahead for the expected increase in data, users, and services that will be required. In this paper we explain the current state of CSops as well as the systems put in place to maintain the services provided.

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