

# ARC CE cache as a solution for lightweight Grid sites in ATLAS

*Tuesday, 11 October 2016 16:30 (15 minutes)*

Many Grid sites have the need to reduce operational manpower, and running a storage element consumes a large amount of effort. In addition, setting up a new Grid site including a storage element involves a steep learning curve and large investment of time. For these reasons so-called storage-less sites are becoming more popular as a way to provide Grid computing resources with less operational overhead. ARC CE is a widely-used and mature Grid middleware which was designed from the start to be used on sites with no persistent storage element. Instead, it maintains a local self-managing cache of data which retains popular data for future jobs. As the cache is simply an area on a local posix shared filesystem with no external-facing service, it requires no extra maintenance. The cache can be scaled up as required by increasing the size of the filesystem or adding new filesystems. This paper describes how ARC CE and its cache are an ideal solution for lightweight Grid sites in the ATLAS experiment, and the integration of the ARC CE cache and the ATLAS data management system.

## **Tertiary Keyword (Optional)**

## **Secondary Keyword (Optional)**

Computing facilities

## **Primary Keyword (Mandatory)**

Distributed data handling

**Primary author:** CAMERON, David (University of Oslo (NO))

**Session Classification:** Posters A / Break

**Track Classification:** Track 4: Data Handling