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Common accounting system for monitoring the ATLAS Distributed Computing resources

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The ATLAS Experiment at the Large Hadron Collider has been collecting data for three years. The ATLAS data are distributed, processed and analysed at more than 130 grid and cloud sites across the world. The total throughput of transfers is more than 5 GB/s and data occupies more than 120 PB on disk and tape storage. At any given time, there are more than 100,000 concurrent jobs running and more than a million jobs are submitted on a daily basis.

The large scale activity of the ATLAS Distributed Computing (ADC) increases the level of complexity of the system and, thus, increases the probability of failures or inefficiencies in the involved components. Effective monitoring provides a comprehensive way to identify and address any issues with the infrastructure. It is also a key factor in the effective utilisation of the system.

A significant effort has been invested over the last three years within the Experiment Dashboard project to assure effective and flexible monitoring. The Experiment Dashboard system provides generic solutions that cover all areas of ADC activities, such as data distribution and data processing over a large number of sites, and these solutions are extensively used by different categories of ATLAS users ranging from daily operations to resource management.

This talk covers a common accounting system used to monitor the utilisation of the available computational and storage resources of ATLAS. This system provides quality and scalable solutions that are flexible enough to support the constantly evolving requirements of the ATLAS user community.

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