

## **Feasibility Study Mandate**

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We propose a feasibility study to assess the potential for using common components for analysis in a distributed environment, based on elements from the PanDA and glideinWMS systems. Upon completion there will be an evaluation phase with a more detailed look at the elements needed and to begin the implementation of a proof-of-concept prototype. The functionality, the operational load, and the support load available in the refactored system will be compared to the current system in the final step.

In order to determine the feasibility of developing an analysis tool solution based on common contributions for CMS and ATLAS we propose forming a small working group. The group should consist primarily of technical experts in the current experiment systems.

The group's goal is to determine what elements of an analysis framework could be provided in common, and how to interface the common elements with the existing experiment services.

The group should begin with an architectural service and functionality diagram of both existing systems. The working group will develop an architectural diagram identifying what experiment specific services could be replaced with common elements.

The final deliverable of the working group should be a report to the meeting participants and to ATLAS, CMS, IT-ES management describing the proposed use of common components and services and a work plan, with an initial estimate of the level of effort required to develop a proof-of-concept prototype.

## **Members and Organization**

The team will be composed of two investigators from IT-ES with overview knowledge on the CMS and ATLAS analysis frameworks to start. After an initial assessment, to be completed in a few weeks, a broader team of experts will be involved for a more detailed evaluation and the eventual work plan of the proof-of-concept.

We intend to hold short weekly meetings where regular reports from the work group are given.

As we see that this process, if successful, could serve as a template for other collaborative projects between the experiments, we propose that representatives

from ATLAS, CMS, and IT-ES management observe and alternate chairing the meetings.