

US-CMS Milestone Status Report

Title: Development of the DC06 Production System

Year: 2005

Original Expected Completion Date: September 2005

Revised Expected Completion Date: January 2006

Description of Milestone: This milestone describes the US-CMS goal to develop a production system to execute the generation of events for the data challenge in 2006 (now called CSA06). The goal is to release an architecture and infrastructure that allows more automated resource discovery, a higher level of job success, more automated error recovery, and an ability to use a larger number of CPU resources.

Conclusions:

This milestone has slipped from slipped from September 2005 to January 2006. There are three reasons for the delay. The first is that US-CMS lost one the original developers of the current production system in July. He had been expected to contribute to the new development. More importantly the challenge itself was shifted from the spring of 2006 to the later summer of 2006 and it was decided that the challenge would be performed with simulated data generated with the new framework. These two items drive the schedule for needing the final version of the new system to April 2006, with an initial release in February.

US-CMS has concentrated on some of the contributing components to the new production system. The next generation of the US-CMS developed job specification and execution tool has been released. The tool re-factors the individual components and makes the system more modular and easier to support. It also enables job chaining, where independent applications are executed within the same workflow. This functionality was lost in the previous version of the tool.

US-CMS has also performed technology evaluations of components to improve job monitoring and debugging. This integrates US-CMS developed components, with contributions from the CDF experiment, and a module supported by the PPDG grid project.

US-CMS developers have also contributed significantly to the architecture discussions and designs of the new system. Though the milestone has slipped from the original schedule, we do not believe it will affect the ability to complete higher-level milestones because they have been shifted back as well.