Using container orchestration to improve service management at the RAL Tier I

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CHEP 2016, San Francisco
Highlights

• At the RAL Tier-1 site there is a need to
  – reduce the effort required to manage services
  – have a more flexible environment for handling the needs for an increasing number of new experiments and communities

• One way to do this is to make two fundamental changes to the way services are deployed
  – run applications in containers
  – manage applications using a scheduler

• Setup at RAL
  – Apache Mesos
  – Marathon for managing long-running services
  – A custom framework for managing HTCondor worker nodes

• In this talk we will describe our experiences
  – Managing a Mesos cluster consisting of over 6000 cores
  – Running services on Mesos
  – Running real production jobs from all LHC experiments on Mesos