The OSG Open Facility: An on-ramp for opportunistic scientific computing

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CHEP 2016
San Francisco
October 10, 2016
Outline

• Introduction to the OSG
  – Large computing grid built off of HEP computing resources
  – Now a much larger resource collection serving many other scientific applications

• Over 200M CPU hours used opportunistically in the past year

• The OSG open facility refers to resources that are primarily opportunistic and can be used by any US researcher
  – Over half of all opportunistic hours are used by individual researchers (e.g., economics, medicine, math, biology)

• “Traditional” OSG resources of HEP (primarily ATLAS and CMS) computing sites being joined by university grids and HPCs with opportunistically available resources

• New resource types (supercomputers, GPUs) being added to available OSG resources
Outline

• “Big science” growth on OSG open facility
  – LIGO, AMS, IceCube, sPHENIX, mu2e
  – ATLAS and CMS also exploring use of open facility for peak usage
• Deployment of new technology to ease integration of resources and users on the open facility (HTCondor-BoscoCE, Stashcache)
• Continued deployment of new resources and resource types shows open facility resource availability robust despite LHC Run2 needs