

# The role of dedicated computing centers in the age of cloud computing

*Monday 10 October 2016 14:00 (15 minutes)*

Brookhaven National Laboratory (BNL) anticipates significant growth in scientific programs with large computing and data storage needs in the near future and has recently re-organized support for scientific computing to meet these needs.

A key component is the enhanced role of the RHIC-ATLAS Computing Facility (RACF) in support of high-throughput and high-performance computing (HTC and HPC) at BNL.

This presentation discusses the evolving role of the RACF at BNL, in light of its growing portfolio of responsibilities and its increasing integration with cloud (academic and for-profit) computing activities. We also discuss BNL's plan to build a new computing center to support the new responsibilities of the RACF and present a summary of the cost benefit analysis done, including the types of computing activities that benefit most from a local data center vs. cloud computing. This analysis is partly based on an updated cost comparison of Amazon EC2 computing services and the RACF, which was originally conducted in 2012.

## **Tertiary Keyword (Optional)**

Cloud technologies

## **Primary Keyword (Mandatory)**

Computing facilities

## **Secondary Keyword (Optional)**

High performance computing

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