

# HPC Integration – Available documents

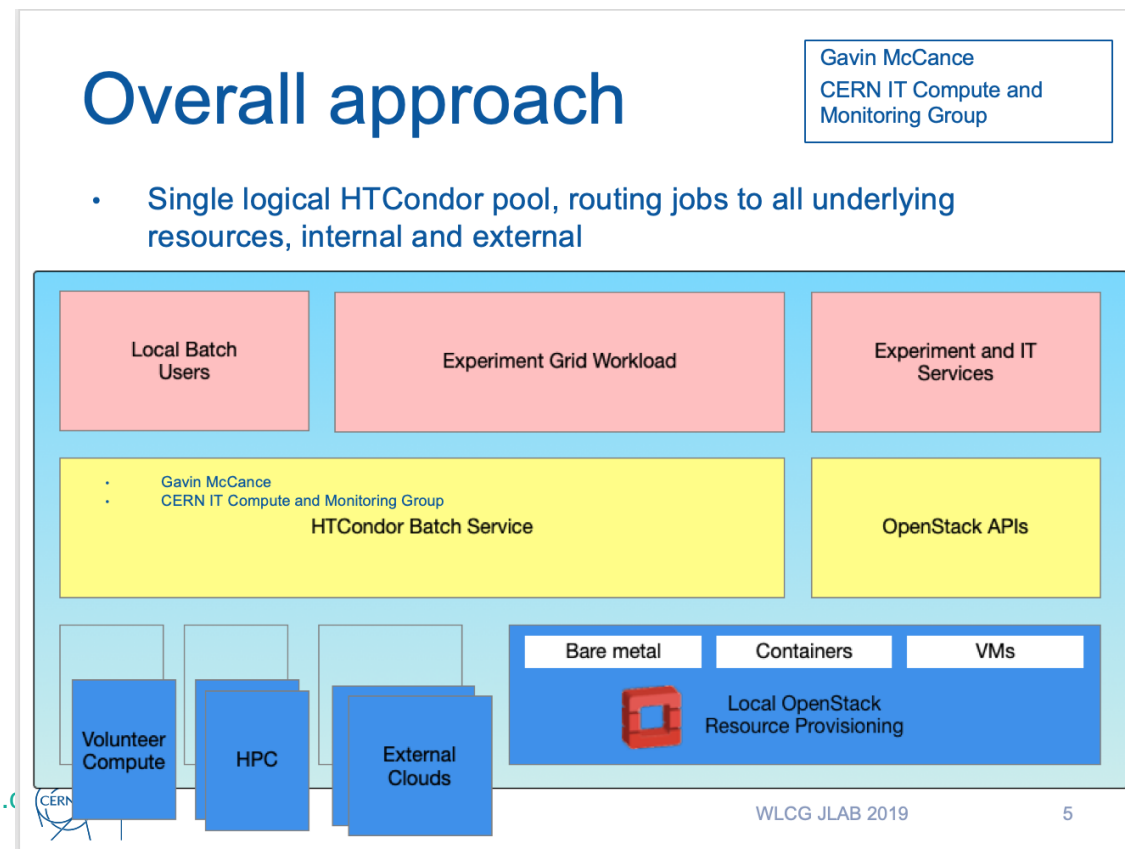
- The experiments are working on HPC integration to make resources accessible
  - Up to now the efforts have been experiment and site specific
- Experiments' HPC-related documents
  - Results of the **joint experiment meeting** on May 9
    - <https://indico.cern.ch/event/811997/attachments/1862943/3062278/HPCLHCC.docx.pdf>
  - **CMS** HPC Document
    - <https://drive.google.com/file/d/1VorANj9JS630ye1p1eVuRKjXFQBuRenJ/view>
  - **LHCb** HPC Document
    - [https://docs.google.com/document/d/1Wu\\_jvlzQASdsfxEi3Twe2n\\_QQWC38wsZYvDv-sReU14/edit?usp=sharing](https://docs.google.com/document/d/1Wu_jvlzQASdsfxEi3Twe2n_QQWC38wsZYvDv-sReU14/edit?usp=sharing)
  - **ATLAS** HPC Document **in Preparation**

# Motivation for a WLCG document for requirements to HPC sites

- At JLAB WLCG workshop we discussed the idea of a document aimed to develop a joint roadmap for enabling the exploitation of HPC resources
  - Strategy: find a common integration/operation model that works for all experiments, and minimises the operations effort required by the experiments and HPC sites
    - Hide the complexity from the users by deploying an overlay resource management system with HTCondor
- Fully consistent with the strategy adopted also by HEPCloud for the integration of both external cloud and HPC resources
  - Ongoing discussions with CSCS for a possible demonstrator
    - Meeting last week at CERN with CSCS, experiments, CERN IT

“Building access layers to cloud and HPC resources”

<https://indico.cern.ch/event/759388/sessions/295048/#20190319>



# Document Outline

- Motivation
- Technical challenges
  - Computing Resource Challenges
    - *Site interfaces, Runtime environment and Containers, Monitoring Services, Accounting/Benchmarking, Authorization, Authentication, Data Processing, Network Connectivity, ..*
  - Potential integration Models
  - Software and Architecture Challenges
- Pilot Demonstrators
  - *Benchmarking, data access, pre-emption, AAI,..*

# Current status, next steps

- The preliminary draft document has been circulated to the experiments' CC
  - It contains contributions of several people
- Next steps
  - Address comments by experiments, distribute it to MB, finalize it for September's MB