

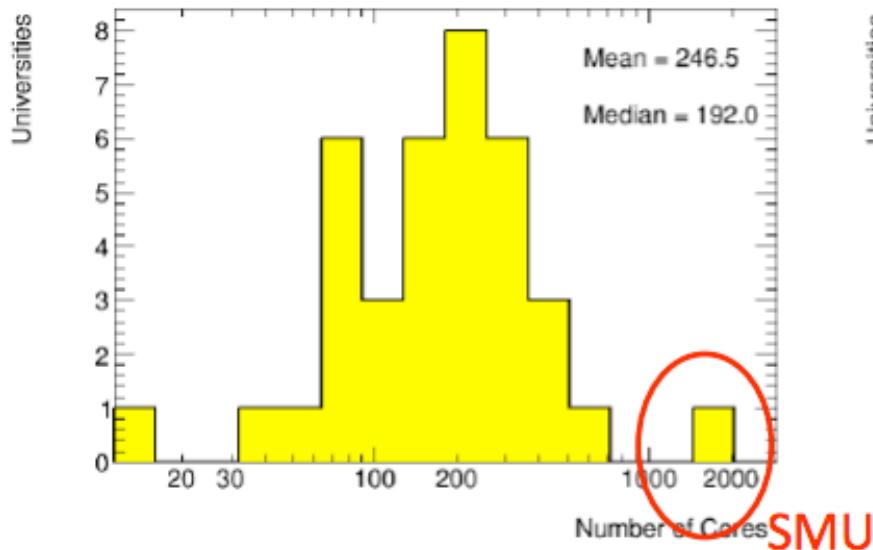
Tier 3 Functionality and Support

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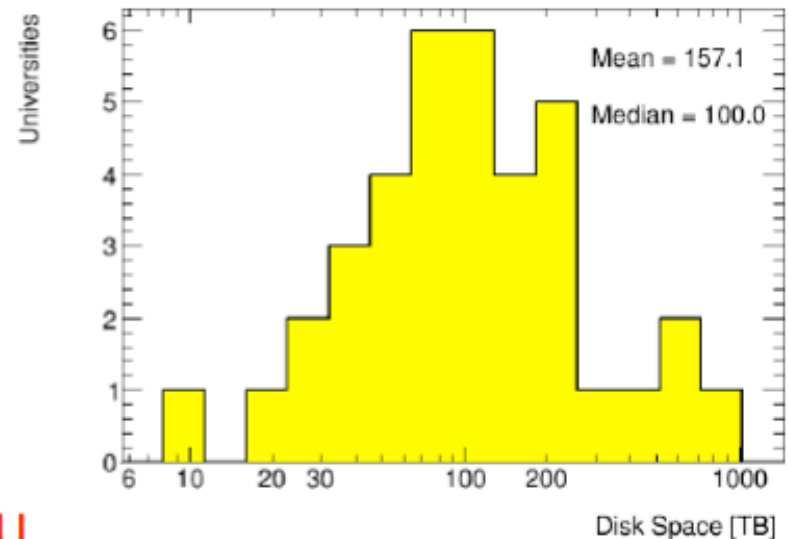
US ATLAS Distributed Computing Workshop
December 11, 2013

Overview of Tier3's

- Three broad types of Tier 3's
 - cluster at local institution
 - cluster shared by several institutions
 - cluster located at Tier1 or Tier2
- Statistics gathered for recent Tier 3 task force provide information about size and usage of Tier 3's:



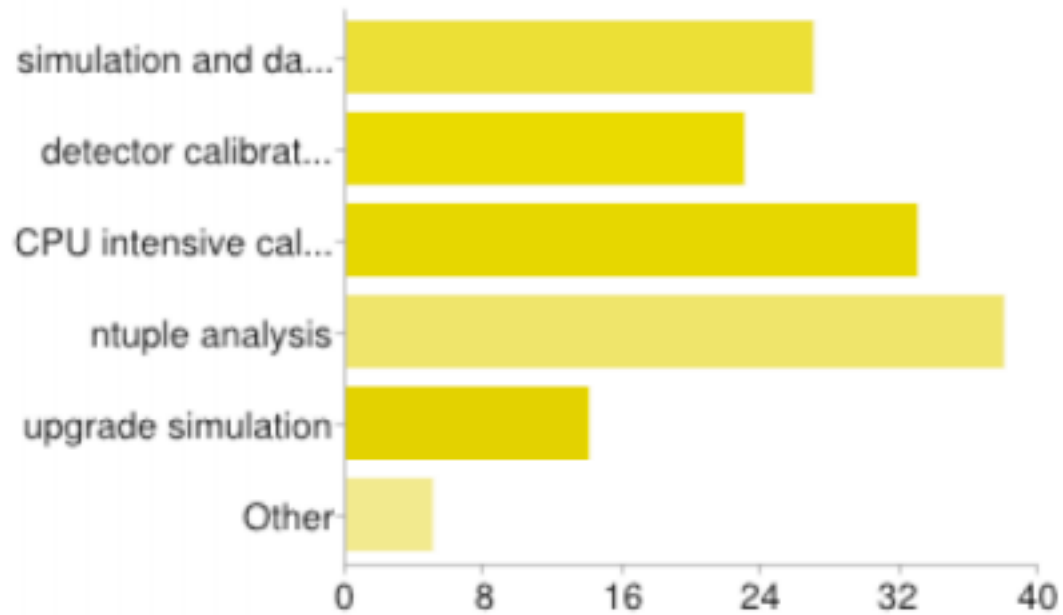
median = 190



median = 100 TB

Tier 3 tasks

B4: What have you used your Tier 3 for over the last two years?



Tier 3 importance

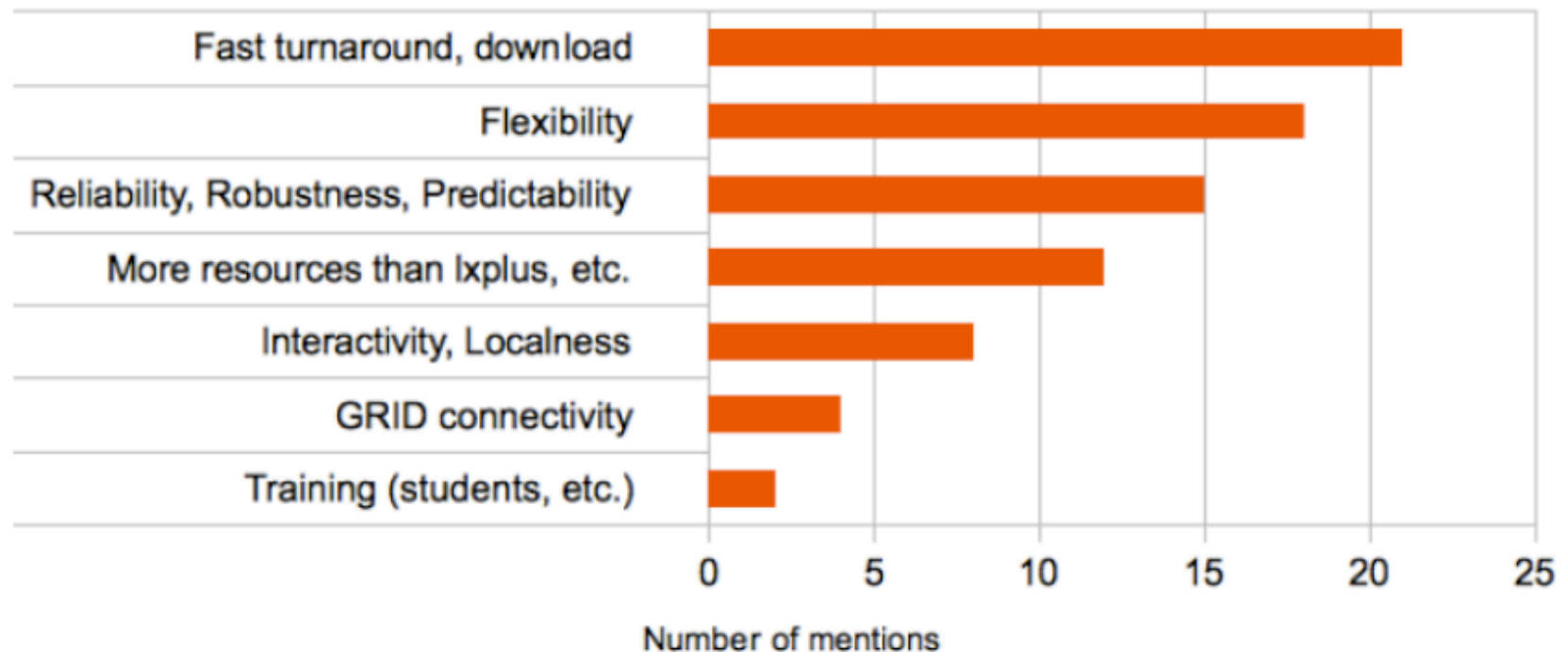
B2: How important is your Tier 3 for your group's productivity?



- This chart alone makes preserving/expanding Tier 3 capabilities a key goal for Physics Support

Favorite Tier 3 features

B3: Please comment on Tier 3 features that you find most useful.



Tier 3 support

- Members of the Technical Support group take the lead in supporting US Tier 3's and assessing possible future technologies:
 - Doug Benjamin takes the lead in maintaining the current Tier 3's
 - includes site visits when possible (is upgrading the Arizona Tier 3 to SL6 this week)
 - Shuwei Ye has been investigating PROOF
 - Fred Leuhring is testing mechanisms to access T1/2 resources from T3 (Panda, condor flocking)
- Providing support to the Tier 3's is perhaps the part of the Analysis Support program that is most visible to US ATLAS analyzers

Initiatives unique to Tier 3's

- There are some tools and technologies that are not relevant for T1/T2 that may be useful at Tier 3's
 - PROOF/Proof on Demand
 - Rucio cache
- Supporting R&D on these topics is part of Physics Support strategy
 - be proactive in anticipating user needs

Summary and Comments

- Tier 3's are used for tasks across the entire spectrum of US ATLAS activities
- Analyzers very much like their local Tier 3's
 - and there is often tangible benefit to US ATLAS in terms of matching resources from campuses
 - services (power, cooling) come for “free”
- For several reasons, we need to make it easier for local users to access resources facilities
 - aging of Tier 3's
 - people currently seem hesitant to make requests for beyond-pledge resources
- Analyzers will have high expectations for any solution
 - in terms of reliability, ease of use, and ease of access to data (including job output)