**ATLAS UK Cloud Support meeting minutes, 21 February 2019**

**Diskless Sites:**

We had a discussion about what we (ATLAS UK) want to do about diskless sites, starting from Stephane Jézequel's ADC Weekly slides (also attached to this Indico page). Here are some of the main points from a lively and lengthy discussion.

* "Lightweight" sites with small disk can still provide significant CPU. Eg. Durham is listed as having 192 TB (currently 302 TB), but provides 2.7% of ATLAS UK CPU. See chart.
* We probably have three classes of Tier-2s: large (>520TB), medium (<520 TB, but significant CPU), and small. The small sites can probably directly access data at another site (but check network connectivity). The medium sites will probably need a disk buffer.
* Gareth suggested to refer to a "buffer" rather than a "cache". The purpose of the buffer is to prestage files for directio access. It's most efficient if this can be coordinated with job starts, as ARC-CE does (eg. currently at Durham). XCache may still help, but not coordinated with job starts.
* For small sites with directio over the WAN, need to find another site close by that can handle the load on the storage. This could be a particular problem for Southgrid, which has several small sites.
* Sam is developing a network map of who is close to whom, though network topologies can change with time.
* We need better monitoring. Maybe we can get something out of PanDA or Monit, but needs someone to do the research (not a trivial job).
* Any disk freed up by these moves can be allocated as LOCALGROUPDISK.
* Sheffield will have to reduce to 150TB, but has 800 job slots. This is a good candidate for going diskless (no buffer to start with), accessing data from Lancaster and/or Manchester.
* Birmingham should have 600 TB (700-800TB next year). We can use this! It is large enough for a DATADISK.
* Agreed to discuss with ATLAS at the Sites Jamboree (5-8 March). We can then bring it back to GridPP.