



Site Implications of DAQ

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DAQ At the Site: Networking

- Data Transmission
 - 10 Gbit/s fiber (likely single-mode) connecting everything at site
 - Some readout systems (e.g. SLAC SMuRF) require more than a single fiber pair
- Timing
 - May require another parallel fiber pair (or two, for SMuRF); may run on top of data network
- Plan for separate networks -- fiber is cheap

DAQ At the Site: Things in Racks

- Computing
 - We need a small number of computers for DAQ
 - Procurement part of DAQ, but space/power is a site issue
 - Half a rack + few KW of power
- Timing
 - Single master clock, need to plan for GPS antenna with clear view of the sky at 1.6 GHz in control area
- Space and power dominated by computing

DAQ At the Site: Alarms

- We plan to provide *non-critical* alarms (data quality issues, detector problems, etc.)
- We *do not* plan to provide safety/infrastructure alarms (power failures, cryostat overpressure, PTC failure, etc.)