

Evolution, design, management and support for the CMS Online computing cluster



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ON BEHALF OF

CMS DAQ TEAM

Highlights



- **Modular and versatile configuration and management system using Puppet**
 - Foreman for provisioning
 - Flexibility to support a significant number of groups, heterogeneous configurations and software
- **System and health monitoring using Icinga2**
 - Including notifications on non standard metrics and failures
- **Performance metrics and plotting: investigations into Collectd, Grafana for full data correlation**
- **Mechanism of Software repository snapshots, and dropbox software to allow user updates to their software**
- **Flexible and redundant core infrastructure to support DAQ and sub-systems:**
 - High availability NAS technology
 - Network redundancy and failover
 - oVirt clusters allowing high availability through rapid migration of VMs