

Site Report

- University of Sussex

Current Hardware - CPU

- For EPP / Grid
 - 3 C6145 half nodes (just had a share of a half) – 196 cores
 - 8 R410s – 96 cores
 - 292 cores in total for epp, at least 50% for grid
- Cluster as a whole
 - Jeremy to detail

Current Hardware - Storage

- 162 TB of lustre
 - 117 for EPP
 - 50 of that for grid but could be increased to 100
- 13 OST's split over 8 OSS's
 - Some have MD1200 behind the R510's

Current Purchasing

- Spending by July 31 by MPS School
 - 4 x C6145 – 512 cores
 - 2 x R720
 - 16 cores / node, 2 NVIDIA K20 per node
 - 8 MD1200 with 3TB disk ~240TB more Lustre
- Other departments spending too
- Large investment into the shared cluster

Networking

- ITS spending £160K on 2 shiny new firewalls...
- ...to support new 10Gb link installed by Sept
- 2 new IB switches
- Will hopefully solve the network issues

Problems

- CPU Utilisation
 - Need to improve queue sharing rules
 - Cut down on settings in Cream to more accurately reflect share between T2 / T3
- Apel
 - New version of Univa GE + some Apel infrastructure issues
 - Need to gap publish
- Perfsonar
 - Installed but needs final tweaking and verifying

Bigger Problem...

- SL6 / Lustre Upgrade
 - Want to move to SL6 across the board
 - Also want to update lustre from 1.8 to 2.4
 - BUT lustre bug affecting storm blocks this for the moment

Conclusion

- Lots of investment from Sussex
 - Shared cluster approach still working
 - Network to get a boost
 - Storage to get a boost
- Need to improve local queue management to balance grid & local use and to get grid to have a reliable baseline and to pick up slack effectively
- Need to improve monitoring across the board!
- Praying for lustre fix for the storm issue