CMS OSG Vision

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Near Sided Vision

OSG has a done a good job supporting the core computing for CMS

➡ Services at Tier-1 and Tier-2 centers are reliable, accounted, and tracked

Currently CMS has more than 20 declared Tier-3 centers

➡ About 10 of these successfully run OSG

Tier-3s are the growth industry in CMS

➡ There were 24 Tier-3 proposals as part of ARRA

➡ As the experiment begins I expect most places will have Tier-3s

Adoption

OSG should be striving for sites at all the CMS universities

➡ 44 locations

➡ Some will be client sites

➡ Many will be computing and storage resources

Continue to Reduce the effort needed for adoption

➡ Push for concept of client connections as a valuable item

- Just because you're not a big resource provider doesn't mean you're not part of OSG

- Helpful to CMS for job submission and data transfer

Scale

With the increase in number of sites and users, OSG could expect at least a 50% increase of processing resources over the next 2 years

➡ Work on the scaling of submission

➡ Work on scaling of returning the data

- Currently the single largest source of analysis job failure is staging the results back

Need to decide what the interface to the site looks like

➡ Rethink the optimization of CE we use now

➡ Design of Globus GRAM doesn't always reflect how we use the system.

Medium Term Vision

OSG needs to become more dynamic in how the resources are used and who is using them

➡ The days of macro structure where CMS and ATLAS build big resources and use them on weeks or months are rapidly ending.

➡ Micro structure

- Getting 10% of the unused cycles, taking advantage of the weekends and slow days

Treating OSG like a series of loosely connected resources with a common interface is not going to be efficient in this new regime

➡ Need to work on tools and policies to take advantage of resources transparently

- Accessing many places

- More transparent access to data

- Pushes the need for improved submission and data transfer scales

Increase the number of participants

Strive to be more dynamic in the VO and the activities

➡ A lot of smaller scale science would benefit from the OSG

How to get more people

➡ Reduce the effort for adoption

➡ Make more resources accessible simultaneously

➡ More transparent access to data

Far Sidedness

For the first time HEP is finding industry communities that have more processing and data resources

➡ Giant farms proposed by Google, Microsoft, Amazon

- From the user standpoint these are big homogenous resources

➡ This will impact OSG in two ways

- How to develop services that utilize these resources
- How does the OSG become a provider of these resources
    - The not-for-profit cloud?