Establishing an OSG site at the University of the Witwatersrand, Johannesburg, South Africa





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Motivation

- Help establish Grid computing in southern Africa - a region that is underserved and on the “wrong” side of the Digital Divide, yet is increasingly involved in international research
- Africa remains a priority for US funding agencies, NSF especially, with strong interest from CERN/Europe also – NSF current emphasis is on international research *and* education programs
- Why South Africa (SA) and the Univ. of the Witwatersrand (“Wits”)?
  - High Performance and Grid computing becoming a focus of SA funding agencies
  - SA is the economic and academic driving force for the region
  - Wits is a world-class research university, active in HENP in the US and at CERN
- Why Columbia?
  - History of successful science outreach program (in ATLAS context) with proposed SA partners

Current status

- With OSG support, we are establishing a small (5-10 core) cluster at Wits, with involvement and support from Wits Physics, Computer Science, and BioInformatics Depts. and School of Education
- Activity driven by Wits HENP group, with other Depts./University providing infrastructure, support, $
- We will provide partial support for a local Sys. Admin./Developer to commission and operate the cluster, become “certified”, and lead the Grid-enabling of the site – matching funds from Wits
- Technical support/advice will be provided by OSG EOT (Wilde, Clifford initially) – mostly remotely but with perhaps one visit per year
- Wits has launched a collaboration with the Univ. of Cape Town HENP group (active in ALICE), to make first tests of intra-SA Grid, and to collaborate on LHC Grid applications
- Initial approval from SA Centre for High Performance Computing for regional Grid proposal as a flagship project

Plans/goals

- Engagement a key goal – initially introducing Grid computing to the Wits campus, with subsequent Education and Outreach activities to university communities and beyond
- Near-term: establish a functional OSG site, accessible/responsive to OSG; training of site Sys. Admin./Developer; training of Wits graduate students (we hope to invite two to participate in the ’07 OSG Summer School); gain experience of operating an OSG site in a low-bandwidth region
- Medium-term: expanded training of Wits students (possible courses on Grid computing); South African Grid school (collaborating with Univ. of Cape Town,…)
- Longer-term: build cluster to modest size facility; outreach to regional institutions, and eventually high schools (with Wits School of Education); high-bandwidth connection to US/Europe likely
- Help/advice/support from OSG partners welcome!