

## Grid Infrastructure at the University of Melbourne: Experiences 2003-2006

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### **Abstract:**

In the early 2000s a new resource-sharing and collaboration paradigm called the Grid started to make an impression. At the University of Melbourne (UofM), the then Advanced Research Computing group (now IT Research Computing Services), which was charged with supporting the computing requirements of researchers, decided that it had a role in supporting the early adopters of Grid technology by ensuring that we had appropriate infrastructure. In 2003, we joined with the ATLAS collaboration at CERN, in which the Physics department at UofM is a member, in their DataChallenge program to test the global Grid infrastructure for production readiness. UofM provided a useful partner in this as we had skilled software support (courtesy of a VPAC grant which enabled us to send a systems programmer to CERN for 3 months), and a different environment from most other sites due to the low bandwidth and high latency of our network connections to overseas sites. This was a very successful project (1), and we were able to develop our infrastructure to the point where we could invite other early adopters to use our Grid resources (2). We have since then participated in further Grid demonstrations (DataGrid at SC03) and are now supporting many different Grid middleware suites. We have had a consistent philosophy of only providing support to groups who are moving into the production phase of Grid usage, and have three clusters now available for Grid use. Grid development is not part of our responsibilities and we do not have the resources to participate in such efforts. In this paper we will describe our involvement in these projects, report on the technologies that we have found successful and support, and give examples of how our users have benefited from this new way of collaborating.