NorthWest Indiana Grid and Open Science Grid Partnership
October 2006, V2.0

The NorthWest Indiana Grid and Open Science Grid are partnering to provide more effective use of the two infrastructures for our users and research groups. The purpose of the partnership is to further inter-grid operation capabilities and interactions, leverage the OSG software and integration activities, and contribute to the evolution of ubiquitous shared distributed infrastructures across local and wide-area university, community and national organizations. Activities that form the partnership includes:

– Opportunistic access to NWICG resources by OSG VOs.
– Support for use of the OSG software stack on NWICG compute and storage sites.
– Collaboration on technical activities for access to and management of storage resources, and service discovery.

The Open Science Grid is a US grid computing infrastructure that supports scientific computing via an open collaboration of science researchers, software developers and computing, storage and network providers. The OSG Consortium builds and operates the OSG, bringing resources and researchers from universities and national laboratories together and cooperating with other national and international infrastructures to give scientists from many fields access to shared resources worldwide.

NWICG is a partnership consisting of researchers and educators at Purdue University-West Lafayette (Purdue), Purdue University-Calumet (Calumet), and the University of Notre Dame, that couples mutual interests among the three campuses with national science and research initiatives, builds a cyberinfrastructure that supports the solution of breakthrough level problems, and enables continuing world-class advances in the underlying technologies of high performance computing.

NWICG OSG Interaction & General User Policy:

NWICG sites will accept jobs using a three-tiered approach. Jobs from a higher tier may preempt jobs from a lower tier, but lower tiers will be allowed to use available resources on an opportunistic basis. Each site will implement this tiered system in whatever job scheduling system they use (PBS, Condor, SGE). If possible, sites will use some sort of "fairness" ticketing/equalizing system within a tier to ensure one user does not monopolize that tier's usage. The goal here is to not favor any user over any other user within the same tier.

The tiers are:

1. NWICG-sponsored researchers: (users approved by science committee)
2. NWICG site (unsponsored) users: (any researcher from ND, Calumet, or WL)
3. OSG users: (any user from any other OSG VO)

NWICG OSG Software Support
NWICG will install the OSG software stack relying on the published documentation and using the standard OSG support mechanisms (email to the goc@opensciencegrid.org). The NWICG will identify a Support Center liaison to the OSG and participate in Operations meetings when any issues arise in the operational aspects of the partnership.

Resource Allocations
NWICG will support all OSG VOs unless there is a specific agreement between the organizations to deny access to specific groups. The policy of access across the OSG VOs is by agreement between NWICG and the OSG Resources Managers.

Security
NWICG will be cognizant of the relevant OSG security policies and will provide a security contact who will accept security advisories distributed by the OSG, and communicate advisories from NWICG to OSG.

Metrics
An annual meeting between NWICG and OSG management will be used to evaluate the benefits being accrued by the partnership. During this meeting we will discuss how the partnership has benefited researchers, improved the efficiency in effort and capabilities of the infrastructures, software and administration support, end-to-end community distributed systems, and science applications.