# Security Area Work Plan for the First Year of the OSG N5Y

## New Projects:

1. **Enhance site security**; **Provide sites with security tools and services to improve site security**. The OSG security team will find, produce, integrate, and provide usage guidance on a set of security tools that will enable sites to setup, manage, and monitor their resources security. In the past, we saw that sites have a big challenge discovering compromises and vulnerabilities. Following services or tools can be provided by the security: vulnerability scanner (Pakiti); remote port scanning service; tools to setup and monitor clusters; documentation and sample configuration documents for existing available tools; working with sites and software team on how to deliver and apply security updates in an efficient way.

Because this project has a very broad scope, we decided to take a step-by-step approach: we first select one sub-project (tool or service) and once we complete the sub-project, we will continue with new sub-projects all year long. We decided to start with Pakiti project. We will provide Pakiti as an rpm and help sites install and configure it as a local service. This means sites can scan their local clusters completely internally and discover vulnerabilities. Currently, OSG Security team runs a centralized instance of this service at NCSA. The project we are proposing here is separate from the centralized service we provide. The proposed project will allow sites to set up their local instances of the Pakiti services without any connection to the centralized service.

Milestone: Deliver packaged Pakiti software and the documentation for distribution to sites by 11/1/2012. Continue with new sub-projects until 5/31/2013. (Hill, Padmanabhan)

1. **Identity Management**
   1. **10% of non-LHC Users access OSG services using campus identities.** The biggest challenge ahead of this goal is to have the OSG sites agree to accept campus identity providers. Currently, there are no campus identity providers that carry an accreditation such as IGTF that OSG sites are familiar with. This causes additional difficulty and anxiety for the sites to accept campus identities. The security team will prepare a risk assessment of using campus identities, help OSG sites discuss the risks, when possible mitigate the risks, and if accepted, help sites accept the campus identities. CILogon CA service provides the mechanisms to convert campus identities into X.509 certificates. Initially, we will use CILogon Basic CA to enable users to access grid resources with their campus ids. Therefore, we will include CILogon CA in the campus identities risk assessment. We will present the risk assessment at BNL, Indiana Univ, and other Tier2 university sites. This will allow the security team to understand OSG Members’ concerns and address them. This will also help accelerate smaller site’s (e.g. Tier2 and 3) acceptance of campus identities. We will select a pilot VO who wants to use CIlogon Basic CA certificates, and we will have this VO access the sites that accept CILogon CA certificates.

Milestone: Present the campus identity risk assessments at FNAL, BNL, Indiana Univ and another university site by 9/31/2012. Have a pilot VO that wants to use the CILogon Basic CA certificates by 9/31/2012. Have 2 sites accept access with campus identities by 12/15/2012. Have 10% of non-LHC users access sites by 5/31/2013 (Altunay)

* 1. **Complete the architecture and design of the new set of ID management services.**

We will architect and design the new ID management services that will keep up with stakeholder demands. In the first phase, we will design the services and changes necessary in OSG infrastructure to fully integrate campus identities (InCommon Federation/CILogon CA) with grid resources. During this phase we will collaborate with the WLCG Identity Federation Prototype effort that aims to build a prototype service that can demonstrate using Campus Identities to access grid resources. In the second phase, we will architect Identity services necessary to integrate campus identities (SAML) with non-grid resources such as web applications, twikis, docdb, and so on. In the third phase, we will architect the integration of identities across other collaborative computing projects such as XSEDE and EGI. This phase will design ID services that will allow users to utilize resources across different projects without gaining new identities.

Milestone: The first draft due 3/1/2013. The final draft due 5/31/2013 (Basney, Altunay, Hill)

## Ongoing Operational Work:

1. Execution of OSG Security Plan and Risk Assessment Plan. Milestone: Start at May 2013-July2013 (Hill, Altunay)
2. Incident response and vulnerability assessment (Hill, Altunay)
3. Incident Drills and Security Training. (Padmanabhan)
4. Troubleshooting; processing security tickets including user requests, change requests from stakeholders, and technical problems (Padmanabhan)
5. XSEDE Operational Security Interface (Altunay)
6. Maintaining security scripts (Padmanabhan)
7. Preparing CA releases (IGTF), modifying OSG software as the changes in releases require (Padmanabhan)
8. Security Policy work with IGTF, TAGPMA, JSPG and EGI (Sfiligoi, Basney, Altunay)
9. Weekly meetings: security team meeting, production, area coordinators (Altunay)

## Metrics

1. Initial acknowledgement/response time to an incident, separated based on incident severity.
2. Initial acknowledgment/response time for high-level operational tickets assigned to the security team.
3. Time spent on security software maintenance tickets.
4. Number of CA bundle releases

## Personnel

New Projects: 1.2 FTE

Ongoing Work: 0.8 FTE

Management, communication, and coordination with other areas: 0.20 FTE

Effort contributed to cross-project teams such as Digicert, SHA-2 transition etc: 0.45 FTE