

OSG PKI Development and Deployment Phase Report

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Abstract

This report summarizes the activities, accomplishments of the OSG PKI Development Phase that spanned May 19th through September 7th, it also presents plans for the OSG PKI Deployment Phase that will span September 7th through September 28th. This document is a version of a Development Phase report previously published on September 12th, 2012 with an Addendum describing Deployment Phase activities, a phase that spanned September 7th through September 28th.

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1 Summary

The Transition Project continues on track to providing service starting on October 1st and being capable of taking over completely for the DOE Grids PKI by February 1st, 2013. The majority of tasks were completed as planned during the Development phase, with some being ahead of schedule and Deployment phase activities already being worked on. A few tasks were carried over to the Deployment phase as described in Section 3 and are being addressed by project management to bring them back on track.

The team continues to coordinate via the OSG twiki¹ and via weekly conference calls², which are attended by DigiCert and are open to any member of the OSG community.

ESNet has announced the DOE Grids PKI will continue providing service until mid-March of 2013 to coincide with the LHC shutdown. At this time, the Transition Project has made no changes to our project plan in response to this, preferring to keep this as contingency buffer.

2 OSG PKI Development Phase Tasks and Accomplishments

2.1 Develop the OSG CA Web Service Front-end

Owner: Soichi Hayashi

Task completed. Test platform at <https://oim-itb.grid.iu.edu/oim/certificate> and production platform at <https://oim.grid.iu.edu/oim/certificate>.

Outstanding bugs:

<https://jira.opensciencegrid.org/secure/IssueNavigator.jspa?mode=hide&requestId=11153>

2.2 Develop and Package the new command-line scripts

Owner: Von Welch and Rohan Mathure

Development is complete and in OSG's SVN³.

Outstanding bugs can be viewed in the OSG JIRA⁴.

¹ <https://twiki.grid.iu.edu/bin/view/Operations/OSGPKIDevelopmentPhase>

² <https://twiki.grid.iu.edu/bin/view/Operations/OSGPKITransitionCallNotes>

³ <https://vdt.cs.wisc.edu/svn/software/osg-cert-scripts-v3/>

⁴ <https://jira.opensciencegrid.org/secure/IssueNavigator.jspa?mode=hide&requestId=11151>

Packaging by OSG Software team is pending and marked as a Deployment Phase carry-over.

2.3 Review software by OSG Software Team

Owner: Von Welch, Alain Roy, Tim Cartwright

Two calls were held between the OSG Software Team and the PKI Transition team to review the software based on the criteria defined in the Acceptance Criteria document [3]. The July 23rd call was attended by Alain Roy, Soichi Hayashi, and Von Welch and the August 9th call, focusing on the command-line clients, was attended by Alain Roy, Soichi Hayashi, Rohan Mathure and Von Welch. Notes from these meetings can be found in the notes from the weekly calls.

No major issues were identified. Each meeting identified a number of issues, which have for the most part been addressed. Remaining issues are:

- Documentation
 - <https://jira.opensciencegrid.org/browse/OSGPKI-70>
 - <https://jira.opensciencegrid.org/browse/OSGPKI-121>
 - <https://jira.opensciencegrid.org/browse/OSGPKI-122>
- Handling of user's email domain
 - <https://jira.opensciencegrid.org/browse/OSGPKI-79>
 - This has turned out to be a bigger issue and is discussed in the carry-over section.

Subsequently, a call was held between Alain Roy, Tim Cartwright and Von Welch to address Alain's departure from the OSG Project and Tim's replacing him as lead of the Software effort. A plan was agreed-to where the software team would perform an initial packaging, code review and evaluation of the command-line client test suite and provide feedback to the Transition team.

2.4 Developer Testing

Owner: Von Welch, Soichi Hayashi, Rohan Mathure

The web front end has been available for internal testing since June 7 and the command-line clients since June 18. Testing of the web front-end has progressed reasonably well. Initial testing of the command line clients revealed more substantial problems with the command line, which have been addressed. Both the web UI and command-line clients continue to be tested and minor software issues ironed out.

2.5 Define Changes to Operations

Owner: Rob Quick

The following document has been drafted and reviewed:

<https://twiki.grid.iu.edu/bin/view/Operations/PKIOpsImpact>

A question has subsequently arisen about the need for redundancy of the OIM service as described in the document. A initial phone call was held on September 5th to discuss this, with the conclusion that it may be more effective to increase fail-over by improving the current fail-over process through better testing (“firedrills”). The GOC is going to evaluate how long current fail-over takes.

It was noted that OIM's last 12 month uptime is 99.68%⁵, which is mostly due to standard maintenance on VMhost that hosts OIM is hosted rather than OIM itself.

2.6 Acceptance Testing of System

Owner: Von Welch

Following onto the developer testing of the system, others were invited to test. To date, the system has handled over 800 host certificate requests and 60 user certificate requests⁶ (although, many of the host requests are from the command-line client automated tests.). Non-developer requests have been seen from 11 people (Alex Sim, John Volmer, Ruth Pordes, Brian Bockelman, Garhan Attebury, Rob Quick, Neha Sharma, Shreyas Cholia, Mark Dykstra, Kimberly Miles, and Rajkumar Kettimuthu).

2.7 Update of Transition Plan

Owner: Jim Basney

We have engaged with US CMS and US ATLAS to doing initial testing of enrolling new users and determining what issues VOs might encounter. This testing has not progressed to the point yet we have results.

2.8 Update of Training Plan

Owner: Mine Altunay

No progress during Development phase. Jim Basney has been added as a resource and this task has been carried over to the Deployment phase.

2.9 Update of Communications Plans

Owner: Ruth Pordes

Plans are being made to start forwarding PKI Transition communications to major OSG email lists and engage with VOs one-on-one to work on the transition.

2.10 Execution of DigiCert Contract

Owner: Von Welch

⁵ <http://tinyurl.com/9japdsh>

⁶ https://munin.grid.iu.edu/munin/ITB_VMs/oim-itb/index.html#quota

Completed. A contract between Indiana University, on behalf of OSG, and DigiCert has been executed. The contract was reviewed by the OSG Executive Team prior to execution. The contract is for two years (6/2012-5/2014), with annual payments of \$87,500. US ATLAS and US CMS have agreed to cover these costs and subcontracts between FNAL, on behalf of US CMS, and BNL, on behalf of US ATLAS, have been established for the first year.

2.11 OSG-DigiCert Interactions

Owner: Von Welch

Completed [4].

2.12 Contingency Plan

Owner: Mine Altunay

The OSG Executive Team requested that the Transition team research OSG's options for maintaining operations in the event that DigiCert were to become compromised or unavailable. The Transition team documented an analysis of the impacts of these two events [5] and a proposed plan to prepare for and respond to such events [6].

The analysis and plan were presented to the OSG Technical Director and OSG Council on August 22nd and 23rd respectively. Based on these presentation the recommendations from the Executive Team are as follows⁷:

- We should inform the WLCG of OSG's plans to utilize a non-IGTF accredited CA in the event of such a contingency and allow them the opportunity to comment.
- Several possible additional contingency studies were considered, but it was agreed the plan was sufficient to make further work on it lower priority than other transition tasks.

2.13 Other Tasks

2.13.1 XSEDE Meeting

Task Owner: Von Welch, Randal Butler (for XSEDE)

As part of our ongoing task to monitor XSEDE's progress in establishing a new PKI, a meeting was held between management and cybersecurity personnel of the OSG and XSEDE projects.

During the meeting, no opportunities for collaboration on current CA activities were identified. This was primarily due to two factors:

⁷ <https://www.opensciencegrid.org/bin/view/Management/2012ETtopics> - see notes for 2012-08.

1. Differences in timeline: OSG is 6+ months into a development path with a firm deadline before the DOE Grids PKI ceases providing service while XSEDE is just beginning their planning process.
2. Differences in IdM Architecture: As described previously, OSG and XSEDE have difference approaches to IdM that drive differences in CA implementation and policy that are not immediately obvious how to reconcile.

Opportunities for longer-term collaboration are identified in the notes from the meeting [7].

2.13.2 Certificate Usage Analysis

Task Owner: Von Welch

During the Development Phase, it was realized that a better understanding of OSG's certificates needs was needed. Hence a unplanned task was undertaken to accomplish this. Data from the DOE Grids PKI and OIM was analyzed and documented to better understand OIM's certificate usage [8].

2.13.3 Software Sustainability for OIM

Task Owner: Rob Quick

During the planning phase [9], an issue was identified in that OSG only had a single expert (Soichi Hayashi) in the development of OIM, which forms the basis of the OSG Web UI. Alain Deximo has been identified as second OIM developer to address this concern and steps have started to develop his expertise.

2.13.4 DN Transition Planning

Owner: Jim Basney, Anthony Tiradani

During the Development Phase, it was realized that more effort was needed to understand the challenges VOs will face in transitioning their user's DNs. Hence extra effort was put into early testing with US CMS (with US ATLAS joining near the end of the phase).

Unfortunately due to technical constraints and vacations at the end of the summer, this has not progressed far enough to produce useful results.

2.13.5 Updated Trusted Agent Processes

Owner: Alain Deximo

Two documents were created to update current DOE Grids PKI processes:

- Updated RA Processes
<https://www.opensciencegrid.org/bin/view/Security/NewOSGPKI>
- RA Enrollment/Maintenance Process
<https://twiki.grid.iu.edu/bin/view/Operations/OSGPKITrustedAgent>

2.13.6 Added Support for User Revocation by DigiCert

During the Development Phase, it was determined DigiCert API for revocation had previously only included revocation for host certificates and not user certificates⁸. This was identified as a high priority issue to DigiCert and support for user revocation was added by them during the Development Phase. It has been tested in OSG's test PKI and deployment into the production PKI is planned for September 11. This issue is being tracked in JIRA⁹.

3 Tasks to be carried over to the Deployment Phase

The following tasks in the Development Phase remain incomplete and are recommended for follow-on effort in the Deployment phase.

1. Several development and documentation tasks remain to complete the transition of the PKI command-line software to the OSG Software team:
 - <https://jira.opensciencegrid.org/browse/SOFTWARE-758>
 - <https://jira.opensciencegrid.org/browse/OSGPKI-70>
 - <https://jira.opensciencegrid.org/browse/OSGPKI-121>
 - <https://jira.opensciencegrid.org/browse/OSGPKI-122>
 - Resources required: Soichi Hayashi, Rohan Mathure
2. Training Plans: Due to effort involved with the Contingency Plan, 2 days worth of effort to revise the Training Plans based on experiences in the Development Phase have not occurred yet.
 - Resources required: Mine Altunay, James Basney.
3. DN Transition Planning: This activity needs to continue to completion, ideally by the middle of September so that results can be incorporated into training.
 - Resources required: Jim Basney, Anthony Tiradani, John Hover
4. Communications Planning. Some initial planning has been done, but details with regards to internal OSG communication and one-on-one VO engagement are still being ironed out. The communications plan should also consider the Friendly User testing plan as described in Section 5.4.
 - Resources required: Ruth Pordes, Lauren Rotman

⁸ It is believed that the host certificate revocation API worked for user certificates, but was not recommended for such use. Since this limitation was not understood during the Pilot Phase, it was mistakenly not identified as an issue.

⁹ <https://jira.opensciencegrid.org/browse/OSGPKI-10>

4 Budget and Personnel Adjustments

Rohan Mathure replaced Jeremy Fischer as lead developer for the command line clients. Rohan is a relatively inexperienced developer, but has come along with guidance from project management.

Alain Roy departed the OSG at the end of the Development Phase. Tim Cartwright has been designated as his replacement, at least for the moment. The Transition Project has engaged with Tim and Alain, and believe this transition has been handled.

Jim Basney, whose effort was largely unallocated during the Development Phase, was focused on the DN Transition Task and also helped the project management with various minor tasks. Jim remains somewhat unallocated during the Deployment phase and project management recommends this not be altered to continue to provide the project with flexibility.

Project management load continues to be greater than expected in handling unexpected issues and coordination within the team, and between the team and DigiCert on technical issues, OSG Management, mainly on the Contingency Plan, and IU, FNAL and BNL on contract issues.

5 Next Steps: Deployment Phase

5.1 Planned Tasks

The following tasks are planned in the original WBS [10].

1. Deploy the OSG CA
 - Procure Hardware for Redundancy (Quick)
 - New Server Setup for Redundancy (Quick)
 - Install Software (Hayashi)
 - Friendly User Testing (Hayashi, Welch, Deximo, Mathure)
2. Develop and deploy training for OSG Staff (Altunay)
3. Implement changes to operational procedures, policy and other changes defined in the Planning phase. (Deximo)
4. Transfer new software packages ownership to OSG Software team (Hayashi, Welch)
5. Gate Report for completion of Development/Deployment phase (Welch, Sehgal)

5.2 Recommended Changes to Planned Tasks and Resources

1. Procure/install hardware for Redundancy: there is a question right now (posed by Sehgal) whether this is necessary and the question is up in the air

as to whether redundancy is the right path to greater reliability or whether more effort into failover processes would be more effective. The suggestion from project management is to allow this decision to be made and acted on in the Deployment Phase by the project.

2. Develop and deploy training for OSG Staff: Planning for this task was not accomplished in the Development Phase. Given ongoing competition for Altunay's time, project management has added Jim Basney as an additional resource to this task.

5.3 Recommended New Tasks

1. DN Transition Task: It is recommended that Jim Basney, Anthony Tiradani and John Hover continue their efforts in identifying issues VOs will face with DN changes for their users.
2. Present Contingency Plan to WLCG. As recommended by the Executive Team, Mine Altunay should present the Contingency Plan to the WLCG.

5.4 Other changes to Project Plan

1. Contingency plan preparation and testing tests in Transition Phase: Given the decision by the OSG Council that the Contingency Plan is sufficient preparation, two tasks related to it in the Transition phase have been removed.

5.5 Friendly User Testing Details

The following plan¹⁰ has been developed in terms of enrolling new RA Agents and Grid Admins for the production PKI.

- First Phase: GOC Staff (9/11)
 - Kyle Gross, Elizabeth Prout & Chris Pipes
- Second Phase (9/18)
 - CMS - Thomas R Bozonelos, Yolanda Valadez, Jack Manprasert & Johanna-Laina Fischer
 - ATLAS - William Baltz & Anthony Saunders
 - ITB - UC, BNL, and OUHEP sites. We might be able to get a CMS site at FNAL participating as well to help with testing especially glideinWMS.
- Third Phase (9/25)
 - Engage - Mats Rynge
 - ALICE - Jeff Porter
 - SLAC - Marilyn Cariola

¹⁰ <https://twiki.grid.iu.edu/bin/view/Operations/OSGPKITrustedAgentEnrollment>

- SBGrid - Stephen Jahl
- Fourth Phase (10/2)
 - IceCube - Steve Barnett & Heath Skarlupka
 - GLOW - Dan Bradley
 - NEES - Steven Clark
 - GROW - Jeff DeReus
 - Dayabay - Simon Patton
 - NYSGrid - Steve Gallo
 - DOSAR - Horst Severini
- Fifth Phase (10/9)
 - VOs for which OSG is currently acting as an RA agent.

6 Issues for OSG Management to Consider

6.1 Resources for Training

Currently Mine Altunay is the only resource identified for developing training materials. The project manager is concerned that this may not be sufficient, particularly given other demands on her time.

Request: Other resources be identified to help develop training materials.

Individuals who are both good general technical writers or training materials developers, as well as domain (PKI) material experts would be useful.

6.2 Contracting

The process of funding for the DigiCert contract was complicated by the fact it was funded by two separate subcontracts (from FNAL and BNL) than the rest of the PKI development work at Indiana U. This resulted in a several days of time to educate contracting officers and handle paperwork.

Request: Please consider if OSG could somehow act to simplify this process for Indiana University next year (and future organizations acting on OSG's behalf in the future).

Additionally, for expediency a waiver was obtained from Indiana U. for overheads that normally would be charged.

Statement: US ATLAS and US CMS should be prepared to pay overhead in addition to half the cost next year.

6.3 Documentation of OSG IdM Processes

It became clear during the drafting of the Contingency Plan that OSG has a number of identity management processes that utilize certificates (and other identity

management mechanisms) and there is no document that captures all these processes.

Recommendation: OSG Management should consider resourcing a separate project to capture these workflows and their identity management component. It must be stressed that this is not a “security activity” – it takes involvement of expertise from all aspects of the OSG software and services to understand these systems. Understanding how Identity Management is utilized is really one part of understanding the entire workflow and cannot be decoupled.

6.4 Contingency Plan Follow Through

Feedback on the Contingency Plan identified the following potential follow on tasks (in addition to the presentation to the WLCG identified in Section 5.3):

- 1) The document could use an editorial pass to remove assumptions about the reader’s familiarity with PKI.
- 2) Research should be done and documented in terms of what response tasks may rely on certificates.
- 3) Research should be done and documented how OSG would respond if it was suspected that running jobs may have been initiated due to compromised credentials¹¹.
- 4) Re-read the document with an eye towards any tasks that would be significantly cheaper to perform prior to an incident than after an incident and consider undertaking those tasks in preparation.
- 5) Undertake a fire drill to evaluate preparedness and completeness of the plan.

Recommendation: OSG Management should consider allocating some effort every year to complete these follow on tasks and keep the plan up to date.

6.5 Collaboration with XSEDE

As discussed in Section 2.13.1, the meeting with XSEDE identified some potential follow on tasks. In particular, a collaboration on a national-scale host certificate service was identified. This could be a new service, or figuring out how to leverage an existing service such as the InCommon Certificate Service¹².

Recommendation: OSG Management should consider a future project in collaboration with XSEDE and other national-scale projects with similar needs or interest in exploring a national-scale host certificate service and recommending a path forward.

¹¹ Editorial note: this would seem to be useful outside of the contingency document.

¹² <http://www.incommonfederation.org/cert/>

6.6 Project Management Time Limitations

Von Welch, OSG PKI Transition Project Manager, has been working on the project at above his funded level of commitment (20%), with effort levels being as high as 50% for short stretches. During the Deployment Phase he will have several new demands on his time, limiting his flexibility to continue working at above the funded level.

Statement: OSG Management needs to be aware that additional tasks such have been taken on in the past by the Transition Project (e.g., XSEDE Collaboration Meetings, Contingency Plans) will unlikely to be accepted going forward.

7 Deployment Phase Addendum

This section is an addendum to the Development Phase report describing activities during the Deployment Phase, which spanned September 7th through September 28th.

The Transition phase follows, which will run through January, 2013 and culminate with a operational PKI approximately 6 weeks before the DOE Grids PKI ceases providing certificates. The main thrusts for the Transition Phase, are (1) enrollment of OSG VO and Sites RAs and Grid Admins into the OSG PKI, which is required for Operations, (2) creation of high-quality documentation for all facets of the user community, (3) testing of various non-operational aspects of the PKI (verification of audit logging, fail-over of the OIM front and (4) a strong communications and support effort to help VOs and Sites transition their users.

7.1 Issues of Note for OSG Management

In roughly decreasing priority.

1. One task carried over from the Development phase continues to be carried over from the Deployment Phase and that is testing by ATLAS with regards to DN transition. Progress continues to be slow due to slow iteration between the PKI staff and John Hover. We plan on communicating with John and his management to ask for increased prioritization of this task. (Editor's note: subsequent to the Deployment Phase, this task has uncovered a compatibility issue with the new OSG PKI and the ATLAS Panda server¹³. This issue is still evolving rapidly and hence not covered in detail in this report.)
2. We are concerned that VOs do not yet understand the level of effort they will need to commit to the transition (e.g., with user identities changing). FNAL and CMS have been transitioning and we expect to use their lessons learned in a strong communications push. That said, we request the ET support us by lending their weight when opportunities present.

¹³ <https://jira.opensciencegrid.org/browse/OSGPKI-249>

3. On the Personnel front, Jim Basney has indicated his participation in OSG will cease at the end of October due to other time demands. Overall this does represent increased risk to the project, as Jim's time and skill presented a significant resource to address contingencies. His only current tasking was to work with ATLAS on their testing and he has indicated his willingness to continue to help with that, however for practical purposes Von Welch will assume responsibility for this task, particularly given the issue mentioned in Note 1 previously in this section.
4. Good documentation for the PKI requires testing of that documentation on a variety of platforms (Windows, Mac OSX, Linux) and web browsers. We request ET support in our solicitation for help from all OSG staff in testing the documentation.
5. As requested by the OSG ET, the OSG PKI Contingency Plan [6] was presented to the WLCG MB on October 16th. No criticisms were raised. The question was raised with regards to what extent OSG wishes to be a "catch all" CA serving any community with need for a PKI. In general, discussions seem to be leaning away from this, encouraging users to use better options when they exist (e.g., National CAs).
6. An Operations Impact Assessment was completed [11], and while this is preliminary and expected to be refined during the Transition Phase, our current estimate is that Operations staffing requirement from the current DOE Grids PKI, will only increase from .1 to .5 FTE, which is below our initial estimate of .75 FTE [12].
7. While not explicitly captured in any task, friendly user testing and enrollment of VOs and Sites is exposing a number of desired modifications to policies, procedures, and software (both OIM and the command-line utilities). The Transition team continues to make changes to the PKI system to improve ease of use for the OSG user community, something that is expected to continue well into the Transition Phase.
8. DigiCert continues to make a number of improvements to better support the OSG PKI. All high-priority issues have been addressed. A small number of medium-priority issues, mainly around ease of use for OSG staff, remain.
9. IU determined it would have a budget surplus in its subcontract for the project and after consultation with Ruth Pordes, has added a student developer to the project staff to help with the command line clients. The student is focusing on non-critical optimizations and the hope is could mature into potential future staff.

7.2 Tasks carried over from Development Phase

1. Several development and documentation tasks remained to complete the transition of the PKI command-line software to the OSG Software team. At the end of the Deployment Phase the status is as below:

- a. <https://jira.opensciencegrid.org/browse/SOFTWARE-758>
 - i. [Completed](#)
 - b. <https://jira.opensciencegrid.org/browse/OSGPKI-70>
 - i. Completed.
 - c. <https://jira.opensciencegrid.org/browse/OSGPKI-121>
 - i. [Completed.](#)
 - d. <https://jira.opensciencegrid.org/browse/OSGPKI-122>
 - i. [PENDING](#)
 - e. Resources required: Rohan Mathure
2. Training Plans: Due to effort involved with the Contingency Plan, 2 days worth of effort to revise the Training Plans based on experiences in the Development Phase have not occurred yet. At the end of the Deployment Phase the status is now:
 - a. Completed:
 - <https://twiki.grid.iu.edu/bin/view/Security/OSGPKITraining>
 3. DN Transition Planning: US CMS has completed their testing and found no surprises. US ATLAS testing has been lagging due to lack of availability of John Hover. This task continues to be carried over at the end of the Deployment Phase:
 - a. Work in progress:
 - <https://twiki.grid.iu.edu/bin/view/Security/DOEGrids2DigiCertDNTransition>
 4. Communications Planning. Some initial planning has been done, but details with regards to internal OSG communication and one-on-one VO engagement are still being ironed out. The communications plan should also consider the Friendly User testing plan as described in Section 5.4. This task continues to be carried over at the end of the Deployment Phase

7.3 Tasks and Status

7.3.1 Procure Hardware for Redundancy

Owner: Rob Quick

Task removed from work plan.

Based on the analysis done as part of the Operations Impact Document [11], it was decided that a test of current OIM fail-over processes should be undertaken to evaluate the need for this redundant hardware.

Upon investigation, restoring the OIM service from bare metal will take between 10-30 minutes, with the 10-minute case being the most probable. Due to the ability of Operations to rebuild this service quickly, it was determined that redundant

services are unnecessary to operate at "High Priority" service levels. Under this plan the only work necessary is to have VM space available and updated installation scripts in case a restoration is needed.

7.3.2 New Server Setup for Redundancy

Owner: Rob Quick

Task removed from the work plan for reasons given in previous section.

7.3.3 Install Software

Owner: Soichi Hayashi

Task complete.

7.3.4 Friendly User Testing

Owner: Von Welch

Complete.

It was determined that the plan described in Section 5.5 was too aggressive due to the lack of training. However the first phase, GOC Staff, was completed. Training has been scheduled for early October and this will allow the other RA Agents and Grid Admins to be enrolled.

7.3.5 Develop and Deploy Training for OSG Staff

Owner: Altunay, Basney

Complete: <https://twiki.grid.iu.edu/bin/view/Security/OSGPKITraining>

7.3.6 Implement changes to operational procedures and policy

Owner: Deximo

Complete: <https://www.opensciencegrid.org/bin/view/Security/NewOSGPKI>

7.3.7 Transfer new software packages ownership to OSG Software team

Owners: Cartwright, Welch

Pending. Given the software team is currently burdened with the departure of Alain Roy and we believe the command-line tools need more testing and user feedback, we have delayed this transfer until current user requests for improvements have been met, more user feedback has been received, and we believe the software is closer to final form.

7.3.8 Gate Report for completion of Development/Deployment phase

Owner: Welch

Completed. This document represents this report.

7.4 Tasks Carried over to Transition

1. DN Transition Planning: Please see Note 1 under the previous issues section.
 - a. Resources required: Von Welch, John Hover
2. Communications Planning. Some initial planning has been done, but details with regards to internal OSG communication and one-on-one VO engagement are still being ironed out. The communications plan should also consider the Friendly User testing plan as described in Section 5.5. This task continues to be carried over.
 - a. Resources required: Ruth Pordes, Lauren Rotman
3. Transfer new software packages ownership to OSG Software team: Given the software team is currently burdened with the departure of Alain Roy and we believe the command-line tools need more testing and user feedback, we have delayed this transfer until current user requests for improvements have been met, more user feedback has been received, and we believe the software is closer to final form.
 - a. Resources required: Mathure, Welch, Cartwright, Selmeçi

7.5 Other Updates

7.5.1 Handling of User's Email Domain

This has been resolved by DigiCert.

<https://jira.opensciencegrid.org/browse/OSGPKI-79>

7.5.2 Planning of FermiLab transition

It was recognized that FermiLab is a very complicated user of the PKI and one-on-one engagement with Frank Nagy was undertaken and a plan for their transition was drafted and is now being executed.

7.5.3 Contingency Plan Presentation to WLCG MB

The presentation of the PKI Contingency Plan to the WLCG MB has been scheduled for October 15, 2012. (See Note 5 in the previous Issues section for an update.)

8 References

1. Von Welch. OSG Certificate Authority Implementation Plan. March 6th, 2012. https://twiki.grid.iu.edu/twiki/pub/Operations/DigiCertPlanningDevAndImplementation/OSG_CA_Implementation_Plan-4.pdf
2. OSG PKI Planning, Development, and Implementation. <https://twiki.grid.iu.edu/bin/view/Operations/DigiCertPlanningDevAndImplementation>

3. OSG PKI Acceptance Criteria.
<https://twiki.grid.iu.edu/twiki/pub/Operations/DigiCertPlanningDevAndImplementation/OSG-PKI-Acceptance-Criteria-2.docx>
4. OSG-DigiCert Interactions. <https://osg-docdb.opensciencegrid.org:440/cgi-bin/ShowDocument?docid=1135>
5. OSG PKI Contingency Analysis. <http://osg-docdb.opensciencegrid.org/cgi-bin/ShowDocument?docid=1121>
6. OSG PKI Contingency Plan. <http://osg-docdb.opensciencegrid.org/cgi-bin/ShowDocument?docid=1115>
7. OSG-XSEDE Meeting Notes. <https://osg-docdb.opensciencegrid.org:440/cgi-bin/ShowDocument?docid=1114>
8. OSG Certificate Analysis. <http://osg-docdb.opensciencegrid.org/cgi-bin/ShowDocument?docid=1116>
9. OSG Planning Phase Report. <http://osg-docdb.opensciencegrid.org/cgi-bin/ShowDocument?docid=1120>
10. Transition Project WBS.
<https://twiki.grid.iu.edu/bin/view/Operations/OSGPKIProjectWBS>
11. Operations Impact Document
<https://twiki.grid.iu.edu/bin/view/Operations/PKIOpsImpact>
12. OSG Identity Management via DigiCert CA. Preliminary Project Estimate.
September 21, 2011

Appendix A Project Management Report

| ID | WBS | Task Name | InCharge | Duration | Predecessors | Start | Finish | % Complete |
|----|----------|--|--------------------------------|-----------------|--------------|--------------------|--------------------|-------------|
| 0 | 00 | New OSG PKI Project | Welch | 481 days | | Mon 3/12/12 | Mon 1/27/14 | 52% |
| 1 | 1.1 | Planning Phase | Welch | 50 days | | Mon 3/12/12 | Fri 5/18/12 | 100% |
| 2 | 2.1.1 | Development and Deployment Plan | Hayashi, Fischer | 30 days | | Mon 3/12/12 | Fri 4/20/12 | 100% |
| 3 | 3.1.2 | Document Acceptance Test Plan | Welch, Roy | 15 days | 2 | Mon 4/23/12 | Fri 5/11/12 | 100% |
| 4 | 4.1.3 | Document Transition Plan | Welch, Pordes | 15 days | 2 | Mon 4/23/12 | Fri 5/11/12 | 100% |
| 5 | 5.1.4 | Document Communications Plan | Pordes | 10 days | 2 | Mon 4/23/12 | Fri 5/4/12 | 100% |
| 6 | 6.1.5 | Document Training Plan | Altunay | 10 days | 2 | Mon 4/23/12 | Fri 5/4/12 | 100% |
| 7 | 7.1.6 | Define Contingency Plan (for the event that the DigiCert CA becomes | Altunay | 15 days | 2 | Mon 4/23/12 | Fri 5/11/12 | 100% |
| 8 | 8.1.7 | Baseline WBS and Timeline | Sehgal | 5 days | 6,2,3,4,5,7 | Mon 5/14/12 | Fri 5/18/12 | 100% |
| 9 | 9.1.8 | Finalize & Sign Contract between DigiCert & Indiana | Welch | 20 days | 2 | Mon 4/23/12 | Fri 5/18/12 | 100% |
| 10 | 10.2 | Development Phase | Welch | 80 days | | Mon 5/21/12 | Fri 9/7/12 | 95% |
| 11 | 11.2.1 | Develop the OSG CA web service front-end and integrate with the DigiCert CA | Hayashi | 65 days | | Mon 5/21/12 | Fri 8/17/12 | 98% |
| 12 | 12.1.1 | Develop front-end software and associated documentation | Hayashi | 30 days | 1 | Mon 5/21/12 | Fri 6/29/12 | 95% |
| 13 | 13.2.1.2 | Develop and package new CLI scripts | Malthure, Sehneci | 12 | 12 | Mon 7/2/12 | Fri 7/13/12 | 100% |
| 14 | 14.2.1.3 | Review by the OSG software area of the resulting code and support | Roy | 10 days | 12,13 | Mon 7/16/12 | Fri 7/27/12 | 100% |
| 15 | 15.2.1.4 | Developer Testing of New Solutions | Hayashi, Malthure | 15 days | 14 | Mon 7/30/12 | Fri 8/17/12 | 100% |
| 16 | 16.2.2 | Define changes to operational procedures, policy and other changes defined in the Planning Phase | Quick | 15 days | 1 | Mon 5/21/12 | Fri 6/8/12 | 100% |
| 17 | 17.2.3 | Conduct Acceptance Testing of System | Hayashi, Deximo, Malthure, Roy | 15 days | 11 | Mon 8/20/12 | Fri 9/7/12 | 100% |
| 18 | 18.2.4 | Update Transition Plan | Welch | 3 days | 11 | Mon 8/20/12 | Wed 8/22/12 | 100% |
| 19 | 19.2.5 | Understand and document impact of DN changes | Basney | 15 days | 11 | Mon 8/20/12 | Fri 9/7/12 | 100% |
| 20 | 20.2.6 | Update Training Plan | Altunay, Basney | 3 days | 11 | Mon 8/20/12 | Wed 8/22/12 | 100% |
| 21 | 21.2.7 | Update Communications Plan | Pordes | 3 days | 11 | Mon 8/20/12 | Wed 8/22/12 | 100% |
| 22 | 22.3 | Deployment Phase | Welch | 27 days | | Thu 8/23/12 | Fri 9/28/12 | 95% |
| 23 | 23.3.1 | Deploy the OSG CA - the OSG web front-end and operations components | Hayashi | 15 days | | Mon 9/10/12 | Fri 9/28/12 | 100% |
| 24 | 24.3.1.1 | Install Software | Hayashi | 5 days | 17 | Mon 9/10/12 | Fri 9/14/12 | 100% |
| 25 | 25.3.1.2 | Friendly User Testing | Hayashi, Welch, Deximo | 10 days | 24 | Mon 9/17/12 | Fri 9/28/12 | 100% |
| 26 | 26.3.2 | Develop and deploy training for OSG Staff | Altunay, Basney | 25 days | 20 | Thu 8/23/12 | Wed 9/26/12 | 100% |
| 27 | 27.3.3 | Implement changes to operational procedures, policy and other changes defined in the Planning phase. | Deximo | 10 days | 10 | Mon 9/10/12 | Fri 9/21/12 | 80% |
| 28 | 28.3.4 | Transfer new software packages ownership to OSG Software team | Hayashi, Carwright | 5 days | 10 | Mon 9/10/12 | Fri 9/14/12 | 80% |
| 29 | 29.3.5 | Gate Report for completion of Development/Deployment phase | Welch, Sehgal | 3 days | 5 | Wed 9/26/12 | Fri 9/28/12 | 100% |
| 30 | 30.4 | Transition | Welch | 75 days | | Mon 10/1/12 | Fri 1/25/13 | 49% |
| 31 | 31.4.1 | Complete Execution of Communications Plan | Pordes | 4 days | 22 | Mon 10/1/12 | Thu 10/4/12 | 20% |
| 32 | 32.4.2 | Execute Training Plan for User Community | Altunay | 20 days | 22 | Mon 10/1/12 | Fri 10/26/12 | 100% |
| 33 | 33.4.3 | Issue DigiCerts certs for "friendly" user community | Deximo | 5 days | 22 | Mon 10/1/12 | Fri 10/5/12 | 100% |
| 34 | 34.4.4 | Regression test OSG functionality using new Certs | Altunay | 50 days | 33 | Mon 10/8/12 | Wed 12/19/12 | 50% |
| 35 | 35.4.5 | Perform test Audits with DigiCert | Welch | 5 days | 33 | Mon 10/8/12 | Fri 10/21/12 | 0% |
| 36 | 36.4.6 | Management Readiness Review | Welch | 20 days | 34 | Thu 12/20/12 | Fri 1/25/13 | 0% |
| 37 | 37.5 | First Year of Operations | Quick, Welch | 261 days | | Mon 1/28/13 | Mon 1/27/14 | 0% |
| 38 | 38.5.1 | Start issuing new and renewal certs from DigiCert | Deximo | 1 day | 30 | Mon 1/28/13 | Mon 1/28/13 | 5% |
| 39 | 39.5.2 | "Drain" all active certs from DOEGrids CA | Esnet | 1 day | 30 | Mon 1/28/13 | Fri 1/24/14 | 0% |
| 40 | 40.5.2.1 | Stop issuing new certs from DOEGrids | Esnet | 1 day | 30 | Mon 1/28/13 | Mon 1/28/13 | 0% |
| 41 | 41.5.2.2 | Continue issuing CRLs for DOEGrids Certs | Esnet | 260 days | 30 | Mon 1/28/13 | Fri 1/24/14 | 0% |
| 42 | 42.5.3 | Shut off DEOGrid CA | Esnet | 1 day | 40,41 | Mon 1/27/14 | Mon 1/27/14 | 0% |

Project: New OSG PKI Project
Date: Thu 11/8/12

Task Split Milestone Summary Project Summary External Tasks External Milestone Inactive Task Inactive Milestone Inactive Summary Manual Task Duration-only Manual Summary Rollup Manual Summary Start-only Progress Deadline

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