Subject: FW: SURAGrid & glideinWMS

Date: Monday, November 19, 2012 9:20:26 AM Central Standard Time

From: Chander S Sehgal

To: Burt Holzman, Miron Livny, Lothar A Bauerdick, Ruth Pordes

CC: Gabriele Garzoglio

Your comments and inputs will be appreciated? Based on the response from Steve, I don't have a good next step ....

Chander

-----Original Message-----
From: Steve Johnson [mailto:Steve.Johnson@math.tamu.edu]
Sent: Friday, November 16, 2012 12:00 PM
To: Chander S Sehgal
Cc: Mats Rynge; Ruth Pordes; Lothar A Bauerdick; Gabriele Garzoglio; Parag A Mhashilkar; Mine Altunay
Subject: Re: SURAGrid & glideinWMS

Hi Chander,

It doesn't appear that we'll be able to get past the 3 constraints to running glideinWMS across all of the SURAgrid sites, so we'll continue to pursue traditional and perhaps new methods for workflow management. Thanks for the info.

// Steve

On 11/14/2012 11:31 AM, Chander S Sehgal wrote:
> Hi Steve,
>
> Thanks for the inputs below... I believe there are several aspects to this and I would be happy to arrange to an in-depth technical discussion to provide additional insights:
>
> 1) the trust model is between a site and a VO; we have evolved away from the site to user trust relationship -- thus, most OSG university sites do not use GLExec and we accept the operating environment where a site can ban a VO if there is a problem
>
> 2) GLExec has withstood several security audits and provides a strong mechanism to provide the DN of the actual user (several OSG sites that have strict security requirements use GLExec -- this includes the national labs). In this environment, there is a case to be made that GLExec is more appropriate/secure than sudo.
>
> 3) it is true that a site and worker nodes cannot work with glideinWMS unless they open a small number of outbound ports; via discussion with sites and assessment of security concerns, most OSG sites have evolved to opening up ~6 ports to enable glideinWMS.
>
> Our experience is that glideinWMS provides dramatic improvements in usability and access to more grid resources for the research communities (VOs); over 75% of the jobs in OSG today are run via pilot based systems.
>
> At the end of the day, our principle of site autonomy prevails and it will be up to you to decide how to manage

your sites; we can share additional information to help inform those decisions. I have already talked to our security officer (Mine Altunay) and a member of the glideinWMS project (Parag Mhashilkar) who are prepared to review these issues with you; we can setup a call at a time that works for all.

Thanks,

Chander Sehgal
630-840-5618
OSG User Support

-----Original Message-----
From: Steve Johnson [mailto:Steve.Johnson@math.tamu.edu]
Sent: Tuesday, November 13, 2012 3:40 PM
To: Chander S Sehgal
Cc: Gabriele Garzoglio; Mats Rynge; Ruth Pordes; Lothar A Bauerdick
Subject: Re: SURAGrid & glideinWMS

Hi Chander,

There are 3 primary issues to the way that the glidein WMS works today:

1) It requires the installation of setuid glexec. Installation of setuid executables comes under very close scrutiny at some sites, including mine, and the decision is made not to install them.

Some admins may be more comfortable with a distro's /usr/bin/sudo, so perhaps there may be a secure way to work with sudo in changing uid.

2) Some sites must identify every remote user initiating an action on a local university owned resource. As currently implemented (at least in CMS), the pilot grid DN's identify themselves as a service DN, not a person. Yes, eventually the request can be tied to the remote user when glexec is called (see above - cyclic problem), but the local policy is still violated by the initial contact made by the service DN.

One possible solution is to have the user's DN asserted at the glidein factory instead of later on the resource via glexec. I.e., in the way that the gLite is used by CMS users to launch and control their jobs. This would imply a negotiator/collector running for each user at the factory, and startd's running at the compute nodes.

3) Some sites do not permit outside Internet connections from the compute nodes, so the glidein jobs would be unable to phone home.

I don't see an immediate workaround for #3 other than putting a collector or some sort of proxy on the head node, which may require permission from the site owner.

Partially related, on today's call - a question I have for the BOSCO development is, how does the local login authentication fit into using the broader grid in terms of strong authentication requirements?

Thanks for the attention.

// Steve

On 11/13/2012 02:03 PM, Chander S Sehgal wrote:
> Hi Steve,

Just to follow-up on your talk today at the OSG Council Call; specifically page 11 of https://twiki.grid.iu.edu/twiki/bin/viewfile/Council/November-13-2012/SG_OSG-20121113.pdf where you talk about issues with applying the glideinWMS system in SURAGrid.

Can you please share the issues you have run into to further our understanding? There might be some mitigation strategies that exist and I will reach into our team to see what is available.

Thanks,

Chander Sehgal
630-840-5618
OSG User Support

Chander

-----Original Message-----
From: Steve Johnson [mailto:Steve.Johnson@math.tamu.edu]
Sent: Monday, November 12, 2012 10:24 AM
To: Ruth Pordes
Cc: Lothar A Bauerdick; Chander S Sehgal; John-Paul Robinson;
Kimberly Myles
Subject: Re: Comments on the uploaded talk for SuraGrid

Ruth,

Answers inline.

On 11/10/2012 08:46 AM, Ruth Pordes wrote:

All,

I really appreciate Steve's being available to talk to the Council
this coming Tuesday.

I am sending this to Lothar as Executive Director and Chander as the
User Support lead and am interested in any comments/questions they
have about the posted
talk.https://www.opensciencegrid.org/twiki/pub/Council/November-13-2
0
1
2/SG_OSG-20121113.pdf

I have a couple of questions myself.Also, I know we have a full
agenda. So we need to make sure we leave the expected 10-15 minutes
for the SuraGrid discussion.

In slide 7. How do the sites listed compare with the SuraGrid sites
on slide 2? Are all SuraGrid sites now interfaced to the OSG and/or
are there plans to do so?

Slide 2 shows the participating sites in SURAgrid. At this time, most do not have a resource with the OSG stack on it. The resources on slide 7 are those advertising support for the SURAgrid VO in BDII and which now have R installed. 3 of those sites are primary SURAgrid (1 at TTU, 2 at TAMU) and 3 have primary VO affiliations elsewhere (UNESP, UTA, FNAL).

> Who are your users of R? It would be good to have a few "names" or "groups".
> Are they already using R locally supported by SuraGrid and what are
> the plans to bring them on to test the installations you now have?

This was initiated by a climate modeler at Texas Tech. I don't have her name readily available right now. Today she's running on TTU's resources, including HPC and a campus Condor pool. There has also been some interest from R users here at TAMU and I think there are some a UAB that want to expand onto grid resources.

> How much local and/or remote usage do the SuraGrid DHTC users currently maintain?

Hmm, a little acronym help: DHTC?

> Is your collaboration with the OSG folk as productive as possible
> across the programs?

It's probably too early to tell. One of the major challenges we have solved is the ability to deploy a consistent stack to the resources. I'm hoping that as we deploy more resources and bring another round of end users online that our engagement with OSG will pick up.

// Steve