



Enabling Grids for E-science

Overview of Operations in EGEE-III

Marcin Radecki, CYFRONET

Bratislava, CE ROC transition meeting

www.eu-egee.org



- **Site admin survey – comments about operations**
- **Tasks overview in TSA1.2 Grid Operations**
 - Activities
 - Goals in EGEE-III
 - Issues
- **Regional and Global Teams**
 - Representation
- **Activity Coordination in region**

- **Surveys Received : 12 (25 sites in production)**
 - CESNET
 - CYFRONET-LCG2, CYFRONET-IA64
 - egee.fesb.hr
 - egee.grid.niif.hu
 - egee.irb.hr
 - egee.srce.hr
 - FMPH-UNIBA
 - HEPHY-UIBK
 - IISAS-Bratislava, TU-Kosice
 - **GUP-JKU**
 - **Prague1cg2**
 - **WCSS64**

- **1. Are you in favor of bi-weekly regional operations meetings for activity coordinators (Grid Core Services, 1st line support etc.) and site admins?**

Yes - 7 / No – 5

- No, I haven't noticed frequent discussions in current channels (email lists, conferences)
- No. Site admins are busy people. To get them all to the meeting will be extremely difficult. It is not clear what benefit it will bring.
- No, perhaps on a monthly basis. The system with weekly minutes from the operational meetings works quite well.

The form to presented & discussed at the end of the presentation

Site receives Minutes and Actions from Operations Meetings by:

- **[9]** common web pages accompanied by e-mail notification (as it is now)
- **[7]** web log (blog) with RSS feed (with possibility to discuss issues on a web page)
- **[4]** everything in e-mail
- **[2]** other (say what)
 - Maybe this should be a wiki page so the site admins could **add comments and discussion**. This would be the same as the blog option, but I prefer Wiki.
 - common web pages and **everything in e-mail**

**Grid Core Services (hosting regional top level BDII, WMS, LFC
etc. regional SAM instance, SA1 web pages at CYFRONET)**

- **[0]** not sure what this activity is doing
- **[2]** do not know
- **[10]** is ok
- **[1]** could be improved ...
 - better coordination, more info about provided services to CE sites

Pre-production

- **[1]** not sure what this activity is doing
- **[6]** do not know
 - Is there any?
- **[2]** is ok
- **[4]** could be improved ...
 - maybe some coordination in region?
 - Testing release before it goes to production
 - I believe PPS has experienced some problems because it doesn't reflect the actual state of production. For example, all CEs are of the same type. There was a case where bug propagated to production because that gLite nodetype wasn't present in PPS.
 - should be merged with regional certification of releases. all updates should be tested in pre-production service

Regional certification of middleware releases

- **[4]** not sure what this activity is doing
- **[3]** do not know
- **[1]** is ok
- **[4]** could be improved ...
 - I believe it is better if certification of middleware releases is not tied to regions but rather to global activity. Everyone interested in contributing to this activity should do that on a global level and exchange information with other teams from other regions which are involved in certification. Having PPS service, global certification and regional one sounds a bit to heavyweight.
 - there was no regional certification of middleware releases for a long time now some **recent updates showed that it is still necessary**. Our site is anyway testing updates first on a testbed before running them on the production system. -

Regional certification of middleware releases

- The activity should test all updates before they go into production infrastructure. Buggy packages should be either stopped or 1st line support and sites have to be warned before the update is released.
- Currently it is somehow not working. I'm somehow not in the loop anymore on when new releases go into certification. Should have access to more complete testbed. I've no experience in top level service testing and those components are not available, I cannot test CE/WN/MON etc here..

Coordination and support for middleware deployment

- **[3]** not sure what this activity is doing
- **[1]** do not know
- **[6]** is ok
- **[3]** could be improved ...
 - why coordination is **separated from grid Core Services**? What they coordinate? I haven't noticed and message which would try to coordinate our WMS/LB/... with the rest of CE region. (With BDII exception, but this is due to distributed type of service).
 - Coordination should have a mechanism of **enforcing more prompt middleware upgrades**. We could utilize existing monitoring systems for this. Another thing is that this activity is pretty much the same as the regional operations coordination.
 - currently its only the broadcast via e-mail and making schedules of things are subject to deprecation, right? Would at least be nice to have a blog, where **admins post their experience with updates** and solutions, like SEE does..

- **Regional ticket processing – PSNC**
 - Assign and track solving
 - Create tickets for regional actions
 - In local helpdesk
- **Reporting**
 - Gathering and analysis of weekly reports
 - Raising and tracking regional issues at global level
 - Tracking actions execution in region
- **New operational goals – site availability**
 - Site Availability calculation
 - $\text{Availability} = (\text{CE1} \parallel \text{CE2} \parallel \dots) \vee (\text{SE1} \parallel \text{SE2}) \vee \text{DPM}$
 - $\text{Reliability} = \text{Availability} / (\text{Availability} + \text{Unscheduled Downtime})$
 - Base for Service Level Agreement

- **Operations Actions Tracking**
 - Minutes and actions on a web (will try web log)
 - E-mail notification with complete web page attached
 - Improve possibility to comment issues to give feedback
- **Issues & Plans**
 - Low performance and visibility of some subtasks
 - Slow response to operations action execution
 - „Current reporting mechanism is too time consuming...”
 - Reports are provided by CNRS, post-factum feedback from ROCs
 - Collect feedback and submit GGUS ticket → „new feature request”
 - Availability and weekly reports
 - *Can serve as explanation for site unavailability*
 - *New algorithm for availability calculation taking non-relevant status*
 - Could issues be coordinated through regional operations meetings?

- **Grid Operator on Duty**
 - Regular monitoring shifts - cooperation with 1st line support
 - Participation to COD WG – Tools Improvement for COD
- **Run Grid Services**
 - Services for production sites, for VOs and... users
 - Provide information about services
 - Evaluation: monitoring & usage statistics

- **New goals**
 - Client/server testing,
 - Pre-deployment tests,
 - Provide monitoring services for entire PPS
- **Effort estimation**
 - Share of PPS in TSA 1.2.4 „Run Grid services for production and pre-production” 10-15% (5-7 PMs)
- **Chances for synergy with other CE tasks**
 - Testing new release for Production Services – more stable production core services
 - Testing new release for Site Service – more stable deployment at sites, helps „Middleware Deployment” task
 - Providing monitoring tools for Grid level
 - SAM submission client, nagios?

- **Deleted: Regional certification of middleware releases**
 - Many voices (and real cases showing) that new releases has to be tested
 - Can be done with PPS and coord. of mw. deployment
- **Coordination of middleware deployment**
 - Cooperation with PPS and 1st line support

- **Required by all: sites, core services, PPS**
- **Currently**
 - SAM DB + submission at CYFRONET
 - Used by COD team for development & testing
 - Used by some VOs (gaussian, bgtut)
 - Nagios at SRCE
- **Monitoring – towards EGI/NGI**
 - Do we still need SAM?
 - Can nagios replace SAM?
 - Integration with FCR through SAM DB?

- **Regional Operations Teams in Operations**
 - Management – M.Radecki
 - COD – M.Krakowian
 - Monitoring – SRCE, PSNC – Emir, Rafał
 - 1st line support + deployment coordination – SRCE, IISAS – Emir, Jan
 - Grid Core Services – L.Flis
 - PPS – ? - TBA
- **Global Operations Teams**
 - Operations Automation Team
 - Marcin Radecki, CYFRONET – COD and CE representative
 - Emir Imamagic, SRCE – nagios expert
 - SA1 Technical Team
 - Identify common **site** issues
 - Manage technical SA1 issues & propose solutions
 - CE representative: ??? TBA

- **Assignment of responsible persons**
 - For each task present at partner institute
 - After the meeting via e-mails
- **Meetings**
 - Bi-weekly operations meetings
 - Solve short-term operations issues in CE region
 - Track progress of subtasks
 - Get known and take advantage of what the others are doing
 - Attendance
 - Subtasks leaders (COD, management, PROD, PPS, 1st line, mw. coord, monitoring)
 - Site admins representative – to keep track on issues related to site management – **the person TBA**
 - Site admins invited – to raise issues, improvements
- **Communication channels – mailing list, regional jabber server**

Discussion