EGI: Advanced Computing for Research









Operations - Central & Distributed Topms

Teams Central Operations and Coordination



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Distributed Operations

Resource Centre admins/ops teams coordinating at national/regional level. Some ~3000 service endpoints, 225 cloud/htc resource centres and 30 operations centres

Specialized Teams

Computer Security Incident Response Team (CSIRT), Security Policy management, Technical support, Ticket management, Staged Rollout coordination, Accounting & Monitoring staff

Operations Activities

- Service delivery in reliable/trusted way
- Requirements gathering
- Definition + maintenance of OLAs
- Service monitoring
- User accounting
- Service Request & Incident Response

- Service/Software Validation, Verification & Distribution
- Documentation & Expertise Retention
- Authentication & Authorization Infrastructure (AAI)
- Evaluation of Security Threats External Liaison
- **NEW:** Collaboration Tools (wiki, confluence, jira, indico, mailing lists, SSO etc.



EGI Core Services (I)

- Accounting Portal and Repository
 - compute, cloud, and storage usage records
 - accounting records collected through APEL
- Application DB (AppDB)
 - provides information on virtual appliances and application software available in the EGI Infrastructure.
 - integrated with the EGI FedCloud
- ARGO Messaging Service
 - used by Accounting, AppDB, Monitoring, and FedCloud services
- ARGO Monitoring Service
 - monitoring the status of the EGI infrastructure
 - A/R reports
- Collaboration tools
 - EGI.eu website, SSO and DNS; indigo, wiki, jira, confluence, rt, mailman
- EGI Workload (Dirac)
 - cluster of instances to allow the users to submit computational tasks to HTC and Cloud services



EGI Core Services (II)

- Helpdesk GGUS
 - central point for users support
 - register incidents and service requests
- Helpdesk Human support
 - 1st and 2nd level support
 - tickets triage, first analysis and assignment
 - analysis of configuration and deployment issues and on suspected software defects
 - suggestions of workarounds, creation of a Known Error DB
- Marketplace Services
 - EGI Service Portfolio
- Online CA RCauth
 - release of temporary X509 certificates
 - token translation
 - Integrated with EGI Check-in
- Operations Portal
 - Operations and security dashboard, VO management facilities, broadcast tool, Service Order Management Back Office (SOMBO), VAPOR (information system)



EGI Core Services (III)

- Security coordination and security tools
 - Security policies and procedures
 - middleware risk assessment
 - security incidents, vulnerabilities handling
 - security monitoring
- Configuration Database GOCDB
 - infrastructure topology source
- Services for the AAI
 - AAI platform <u>EGI Check-in</u>
 - Attribute management (<u>PERUN</u>)
 - VOMS catch-all server
- Unified (and Cloud) Middleware Distribution UMD and CMD
 - infrastructure supporting the UMD release process
 - quality assurance, staged rollout
 - middleware release



EGI Foundation responsibilities

- EGI Infrastructure oversight
 - monitor the overall status of services, resource centres, and NGIs
 - measure the fulfilment of agreed service level targets
 - problems follow-up
 - technical support to NGI Operators, Resource Centre administrators, and user communities
- Coordination of activities with the Operations Management Board and the User Community Board
 - procedures and policies
 - new technologies
 - technical roadmap of EGI Core Services and requirements gathering



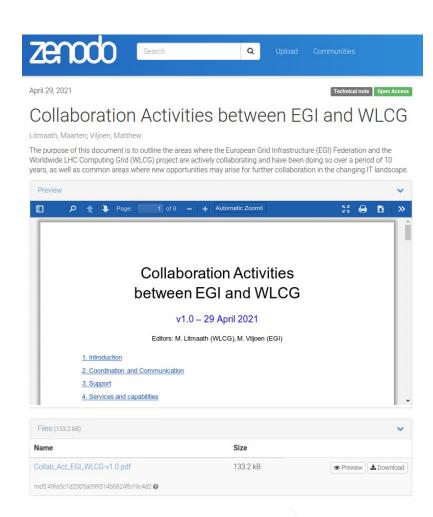
Expectations of an NGI

- Coordination of regional activities
- Support to users and resource centres
 - provide help in resolutions to operational incidents and problems
 - escalating these to higher-level teams in case of need for specialized support
- Manage the Resource Centre OLA with respective Resource Centres
 - the services provided by respective Resource Centres are in compliance with the OLA
 - report violations
 - enforcement of the related procedures and policies
- proactively check the status of the Resource Centres, and monitor the progress of open tickets
- Security
 - interface between EGI Central Security and Incident Response Team and the Resource Centre Security officers
 - overview the security incidents and vulnerability issues occurred to their sites
- Be a member of Operations Management Board
 - attend OMB and other operations meeting when needed
- Ensure the accuracy of the information in GOCDB



Relevant Areas - EGI and WLCG

- Whitepaper outlining technical cooperation areas: https://zenodo.org/record/4717751
- Services of mutual benefit GOCDB, Accounting, Helpdesk, Availability & Monitoring, Ops Portal, EGI AAI, SW Distribution & Support, Security
- Forums, Events and Dissemination Conferences, workshops and technical groups
- Service evolution
 AAI move from X509, GCF support for Globus legacy, CVMFS
- EOSC and HPC
- Environmental Impact and Green Computing





Relevant Areas - CMS

- Lithuania achieves CERN Associate Member state status in 2017 https://home.cern/news/news/cern/lithuania-becomes-associate-member-state-cern
- Lithuanian activity within CMS collaboration:
 - the Lithuanian Academy of Sciences (contact: Andrius Bernotas)
 - Vilnius University (contacts: Aurelius Rinkevicius, Andrius Juodagalvis)
- Summer school with students working at CERN IT department

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