Infrastructure commons OTAG MEETING - November 4th Cyril L'Orphelin, IN2P3











Some figures

- 2 databases (prod/test) hosted on a database cluster
- 4 web services Lavoisier (2 prod / 2 tests)
- A web cluster with 5 nodes
- Around 15 different types of external sources
- 3 repositories in gitlab
- A continuous integration service running with docker instances
- 4 releases since January (2 are foreseen before the end of the year)
- Operations Portal: 85 % of code coverage, 22.551 lines of code
- VAPOR: 91 % of code coverage, 11.100 lines of code (web part)



Achievements of the year

Operations Portal

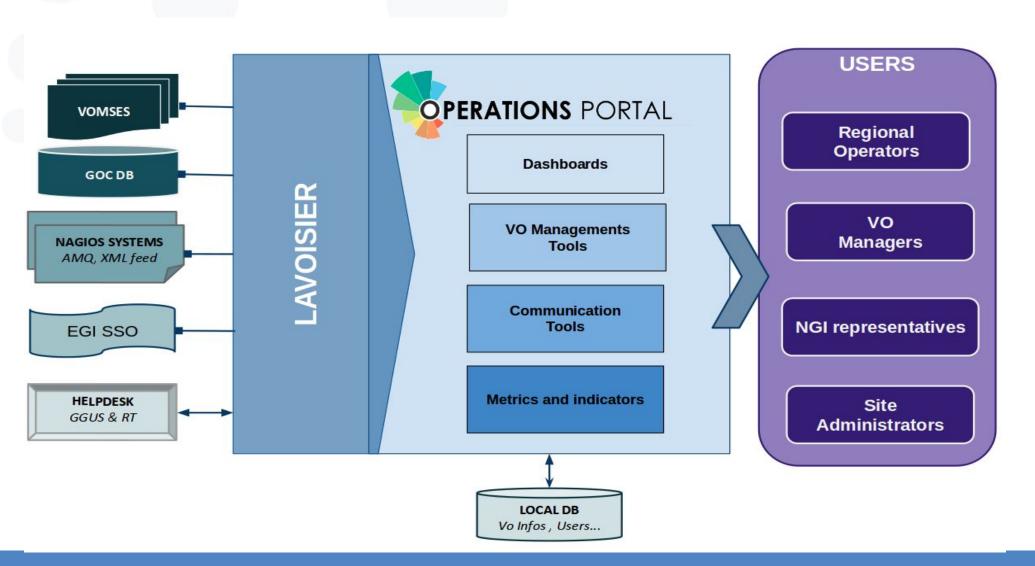
- Frameworks & JS Libraries
- Module and project modifications
- Ergonomics
- Continuous Integration

VAPOR

- Translation of historical parts : jobMonitoring and DataManagement
- Integration of GLUE2 information
- Replacement of Gstat Features



Operations Portal





Operations Portal: Achievements of the year $(\frac{1}{3})$

Frameworks & JS Libraries

Goal : increase of the maintainability and the efficiency of the application and the standardization of the libraries

- Migration to Symfony 3.
- Upgrade of bootstrap library
- Use of Datatables Js libraries to optimize the presentation of the tables
- Use of Google Chart libraries



Operations Portal: Achievements of the year (2/3)

Module and project modifications

- The physical structure of the project has been reviewed
- Modifications of some modules
 - Merge of VO Id Cards / Vo Management Tool
 - Removal of A/R module
- A new module has been added dedicated to downtime information with:
 - The replacement of the current downtime notification system with a new subscription page (emails , rss , ical)
 to the downtime announcements.
 - Visualisation facilities: timelines charts and tables and a search tool

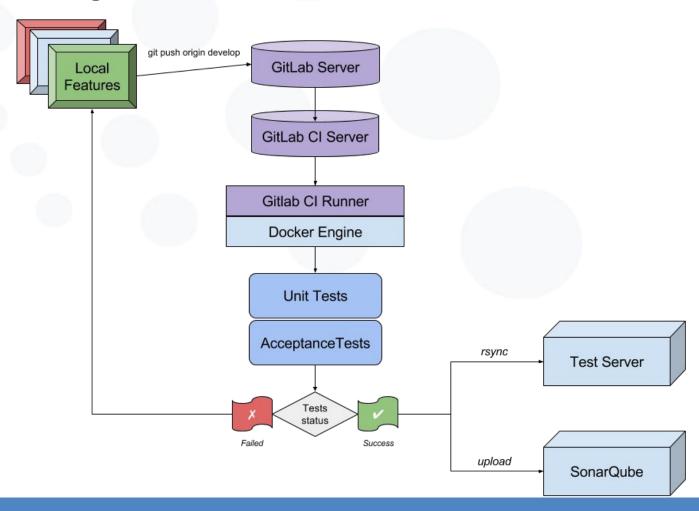
Ergonomics

- Standardization of the visualisation layer and the ergonomics
- Responsive design
- bootstrap 3 and DataTable libraries



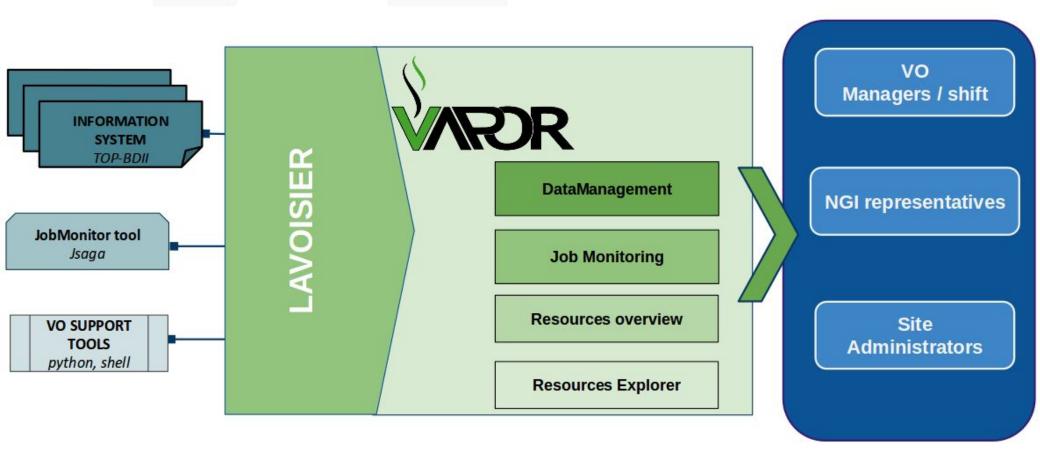
Operations Portal: Achievements of the year (3/3)

Continuous integration





VAPOR: Vo Administration and operations PORtal





Vapor-Data management and job monitoring

Features inherited from the previous version - only ergonomic / look and feel changes

- ✓ Use of scripts to check CE / SE , evaluate SE usages
- ✓ Use of the JobMonitor tool **
- ✓ The different scripts stored results into local files
- ✓ Results are exposed via the Web Service (Lavoisier)
- ✓ Results are available through reports , charts , metrics
- Limited to some VOs: biomed, compchem, enmr.eu, shiwa-workflow.eu, vlemed, vo.france-grilles.fr, see
- Could be activated for other VO on demand

^{**} configured currently only for biomed, vlemed, enmr.eu , shiwa-workflow.eu, vo.france-grilles.fr





- Information extracted from BDII GLUE2
 - > Ldap queries with different filters:
 - objectClass=GLUE2StorageShareCapacity
 - objectClass=GLUE2ComputingShare
 - ObjectClass=GLUE2StorageServiceCapacity
 - ObjectClass=GLUE2Location
 - [...]
- Then results are stored in Lavoisier and aggregated per NGI, site, Countries, endpoints ...
- We remove inconsistencies and incoherencies
- We add also corrections to bad publications (values published in the bad class, values published twice)



Vapor - Resource Overview

Resource Overview > Map

- 1 st Map with the number of sites per Country
- 2nd Map accessible on click with the details of each country
- A table summarizes also the information.

Resource Overview > Table

- Form with a choice of NGI or VO
- Then the summary of resources for this NGI or VO
- For the NGI > site view > services > Vo, VOMS group supported
- For the VO > list of services supporting this VO

Resource Overview > <u>Distribution</u>

- Distribution of vo supported per NGI / the list of Vo supported by sites
- Links to the resource browser

Resource Overview > Figures

- Table/Chart summarizing CPU Benchmark, CPU capacities, Storage Capacities and Jobs Status
- Different levels > NGI > Sites or countries



Vapor - Resource Explorer

Resource Explorer > Top Bdii browser

- Top Bdii Tree browsers (GLUE2Benchmark, GLUE2StorageEndpoints, GLUE2DataStore, GLUE2ShareCapacity)
- Possibilities of exports (Json or XML)

Resource Explorer > by Operations Center/Site

- Detailed information about resources that support a site
- Computing Elements, Storage Elements, Services (VOMS, LFC...), Faulty resources, Cloud resources

Resource Explorer > By VO

- Detailed information about resources available for a VO
- Computing Elements , Storage Elements, Faulty resources, Cloud resources

Resource Explorer > Faulty Resources

• List of resources which are not published properly - bad/default/negative values - incoherencies in the storage space

Resource Explorer > Cloud Resources

• Detailed information about cloud resources



Operations Portal: Next Steps

AAI integration

- Extract DN information from IDP instead of using directly SSL layer (Q1 2017)
- Use the information given by IDP (GOC DB roles, SSO roles).
 - Change completely the current aggregation layer for the users (not trivial)

Perun Integration (before the end of the year)

Change the current system by the puppet module

Provide a new version of the dashboards (before the end of the year)

- refactorization of the code
- simplification of the interfaces
- user customization





- Improve the job monitoring scripts
- Improve the detection/correction of inconsistencies of the GLUE2 publication

Tasks postponed

- Study the possibility to collect information about Cloud Storage
- Study the monitoring possibilities for the virtual machines

INFRASTRUCTURE

• Improvements on the cluster web : NFS performances



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