# WMS status and usage assessment

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# WMS and GLUE2

- WMS may consume GLUE2 as reported in the release notes:
  - https://wiki.italiangrid.it/twiki/bin/view/WMS/WMS34ExtendedReleaseNotes
- Never tested in the production environment
  - Found out a problem when it is enabled the GLUE2 match-making: segfault and crash of workload manager (https://ggus.eu/index.php?mode=ticket_info&ticket_id=118206)
- WMS not included into UMD4, no porting to CentOS7 (lack of manpower)
  - It will remain on sl6, best effort support
- Trying to assess the real WMS usage, asking NGIs and VOs for some numbers

1. How many WMS servers do you have in production?

2. How many and which VOs are enabled?

3. Which VOs are using the service most?

4. If possible, can you provide the jobs number submitted per month (and per VO) through your instances during the last year (Dec 2014 - Nov 2015)?
   It could be fine also a narrower time window. In case it is fine providing the order of size of this number, at least for the main VOs enabled on your servers.

1.  VO Name

2.  How much important is the WMS for your activities?

3.  Do you usually submit jobs directly through WMS? How many jobs per month (providing the order of size is enough)?

4.  Do you have any web portal that makes use of WMS for jobs submission?

5.  Have you ever tried any other tool for the job submission (for example, Dirac)?

6.  How difficult would be moving to other tools for job submission?

# NGIs answers

1. *How many WMS servers do you have in production*?

2. *How many and which VOs are enabled*?

| NGI | servers | Vos |
|---|---|---|
| AfricaArabia | 3 | ops, dteam, sagrid.ac.za |
| NGI_CH | 0 | |
| NGI_CZ | 3 | 10: dteam, ops, auger, voce, belle, supernemo.vo.eu-egee.org, euasia, drihm.eu, vo.cta.in2p3.fr, eli-beams.eu |
| NGI_DE | 1 | 14: belle calice dech desy dteam ghep hermes hone icecube ilc olympus ops xfel.eu zeus |
| NGI_IBERGRID | 9 | 17: ops.vo.ibergrid.eu, iber.vo.ibergrid.eu, tut.vo.ibergrid.eu, earth.vo.ibergrid.eu, eng.vo.ibergrid.eu, ict.vo.ibergrid.eu, life.vo.ibergrid.eu, phys.vo.ibergrid.eu, social.vo.ibergrid.eu, chem.vo.ibergrid.eu, imath.cesga.es, magic, auger, biomed, cesga, fusion, compchem |
| NGI_NL | 3 | 24: alice atlas bbmri.nl beapps biomed dans drihm.eu dteam embrace enmr.eu esr euclid-ec.org geant4 lhcb lofar lsgrid nlesc.nl omegac ops projects.nl pvier tutor vlemed xenon.biggrid.nl |
| NGI_PL | 3 | 10: ops, dteam, lhcb, cms, gaussian, vo.plgrid.pl, hone, vo.nedm.cyfronet.pl, vo.neugrid.eu, vo.cta.in2p3.fr |
| NGI_RO | 1 | eli-np.eu ronbio.ro gridifin.ro |
| NGI_TR | 1 | 14: "biomed ops atlas cms see trgrida trgridb trgridd trgride seismo.see-grid-sci.eu meteo.see-grid-sci.eu  eumed dteam belle" |
| ROC_Canada | 1 | OPS |

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- *Which VOs are using the service most*?
  - **AfricaArabia**: The usage is quite low, but we still consider it an important service. With the retirement of the regional SAM-NAGIOS, we might review this need.
  - **NGI_CZ**: belle and auger make 99% of all the usage
  - **NGI_DE**: The usage is relatively low but non-zero. We know of belle and ilc which switched to DIRAC. hermes, hone, olympus, xfel.eu, zeus have (almost) stopped activities.
  - **NGI_IBERGRID**: it seems magic is using WMS a lot
  - **NGI_NL**: Most of the non-HEP VOs use the WMS. The only ones we are not sure about are drihm.eu, embrace, euclid-ec.org and geant4 (all international VOs that are self-proficient and therefore our support groups do not have contact with them on a regular basis). All other non-HEP VOs use the WMS.
  - **NGI_PL**: They are  mostly used for VO monitoring. Used the most (apart from monitoring): vo.plgrid.pl and lhcb
  - **NGI_RO**: few users
  - **NGI_TR**: local trgrid VOs, ops(for nagios instance), biomed, eumed

- Some numbers if possible…

- NGI_NL: Knowing our users very well, we can tell you however that the majority of the non-HEP jobs are coming in via the WMS.

- NGI_PL: Data for our main WMS. Summary of Number of jobs for last 4 weeks:
  - Prod jobs: vo.plgrid.pl 1096, gaussian 1840, vo.cta.in2p3.fr 5837
  - monitoring jobs: ops 12600, vo.plgrid.pl 11088

- NGI_TR:
  - September: 24326
  - October: 10236
  - November: 16754

- *How much important is the WMS for your activities*?

- **vo.neugrid.eu** and **vo.sim-e-child.org**: The WMS is a key component for the two VOs. indeed all the job submissions are managed by it (wms.gnubila.fr).

- **vo.cta.in2p3.fr**: we don't use it anymore

- **vo.france-grilles.fr**: Several users of the VO is using WMS to submit their jobs. We could promote the use of DIRAC for most of them. WMS was also used by the NagiosBox, but it is no more an issue as it will be centralised with Argo.

- **Isgrid**, **projects.nl**, **lofar**: At this moment the WMS is indispensable. The WMS is used both for a) direct job submission to the Grid (small-scale), as well as for b) pilot job submission to the Grid as parametric-jobs (large-scale).

- *Do you usually submit jobs directly through WMS? How many jobs per month (providing the order of size is enough)?*

- **vo.neugrid.eu** and **vo.sim-e-child.org**: Yes, only through WMS, **5000-10000 jobs per month**

- **vo.cta.in2p3.fr**: we don't use it anymore

- **vo.france-grilles.fr**: no statistics about WMS usage

- **lsgrid**, **projects.nl**, **lofar**: **lsgrid**: **70000 jobs/month**. **projects.nl**: **10000 jobs/month**, but growth to 100000 jobs/month expected within a few years. **lofar**: preparations ongoing for several **100000 jobs/month**

- *Do you have any web portal that makes use of WMS for jobs submission*?

- **vo.neugrid.eu** and **vo.sim-e-child.org**: Yes, we use both the UI and specific web interfaces which uses the JSAGA WMS adaptor (http://software.in2p3.fr/jsaga/dev/contributors.html) which I mainly developed.

- **vo.cta.in2p3.fr** and **vo.france-grilles.fr**: No

- **Isgrid, projects.nl, lofar**: Within the isgrid VO several portals are active that use the WMS.

- *Have you ever tried any other tool for the job submission (for example, Dirac)?*

- **vo.neugrid.eu** and **vo.sim-e-child.org**: No

- **vo.cta.in2p3.fr**: we use DIRAC indeed

- **vo.france-grilles.fr**: Yes, we are using Dirac. We are also promoting this tool.

- **isgrid**, **projects.nl**, **lofar**: Within the Isgrid VO, some larger communities are using Dirac, WS-Pgrade and Celery for job submission. However none of the individual users (in the long tail) have used such tools, as it is generally too complicated for their purpose. Dirac was also tried by our NGI, but on a remote installation (France-Grilles). There is curently no Dirac service for NGI_NL.

- *How difficult would be moving to other tools for job submission*?

- **vo.france-grilles.fr**: First of all, we have to investigate who are using the WMS and how difficult it is for each user/group to migrate to another submission tool

- **vo.neugrid.eu** and **vo.sim-e-child.org**: As Dirac is also available as a JSAGA adaptor I think that for the web interface it would be manageable. The main issue will be for the users who use the UI. It was already really difficult for them to learn the WMS commands so moving to something else would be quite complicated.

- **lsgrid**, **projects.nl**, **lofar**: For both the lsgrid and projects.nl VO's such a move (for example a move to DIRAC) would be problematic, because these VO's consist of many individual users and projects that are unable to make the transition themselves, and the amount of trouble is not outweigthed by the number of jobs that many of these individuals run. The same holds for the individual users groups within the lofar VO.

- ~10^4 jobs per month per WMS instance
- WMS is a key element for the activities of many users
- Moving to another service could be problematic for many users
- It may be worth allocate more effort in maintening and supporting the service

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# Thank you for your attention.

*Questions?*