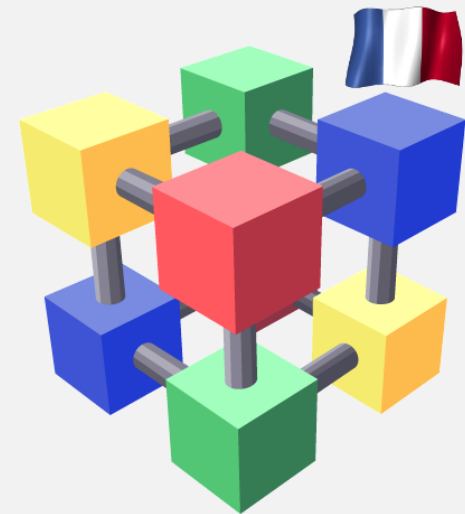# PerfSONAR deployment
Overview of existing instances in France

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Introduction

- ## Needs for LHC network monitoring
  - Network path to/from the storage (standard latency, bandwidth, traceroute tests) => diagnosis in case of limited performance, degradation over time…
  - Standardized monitoring infrastructure : towards a common **service** to the 4 LHC experiments

- ## Deployment of pS-PS driven and coordinated by WLCG
  - See Alessandra Forti's talk
  - Dedicated Task force part of WLCG Service Operations, Coordination and Commissioning

    S. Campana (CERN), S. Mc Kee (ATLAS), M. Zielinski (CMS), S. Liu (CMS), A. Forti (Univ. of Manchester), D. Di Girolamo (CNAF)

- ## Sites are grouped in "regions" or "cloud"
  - Various views handled in a standard way : LHCOPN, USATLAS, LHC-FR...
  - Use of Modular dashboard (BNL) to summarize the information collected and get a region/ cloud status
    - On-going development to improve scalability
  - Currently moving to mesh configuration… to allow "central" configuration

Existing PS-PS instances in France

- ## perfSONAR-PS deployment within WLCG
  - 2 hosts (BW, LAT) per site
  - Site instructions: https://twiki.cern.ch/twiki/bin/view/LCG/PerfsonarDeployment
  - see links to dashboards from http://netstat.in2p3.fr/

- ## LHCOPN Cloud
  - CC-IN2P3 Tier-1 is part of the LHCOPN perfSONAR-PS set-up

  https://grid-deployment.web.cern.ch/grid-deployment/wlcg-ops/perfsonar/conf/OPNcloud.conf

- ## LHC-FR Cloud
  - Intra-region tests started from Tier-2 sites indicated by ATLAS
  - CC-IN2P3-T2, GRIF (LAL, IRFU, LPNHE) , IN2P3-LAPP, IN2P3-LPC
  - and affiliated foreign Tier-2s (Beijing, Tokyo, Romanian sites : RO-02, RO-07)
  - FR ATLAS mesh configuration :

  https://grid-deployment.web.cern.ch/grid-deployment/wlcg-ops/perfsonar/conf/frcloud.conf

- ## Next step….LHCONE Cloud : T2s to T1s tests

Additional PS-MDM instances

- CC-IN2P3
  - 2 hosts (BW, LAT) installed and configured by Dante (GEANT)
  - pilot service for LHCOPN E2E monitoring
- IRFU
  - See Frédéric Schaer's presentation
- RENATER
  - Test of PerfSONAR-MDM capabilities within LHCONE
  - RENATER LHCONE backbone monitoring
- GOAL for today :
  - More about PS-MDM : capabilities, roadmap…
  - Added-value of PS-MDM
  - Comparaison & Interoperability with PS-PS
    - Interoperability needs : mainly operational issues (central configuration, aggregation of information), not only in terms of being able to initiate tests one against the other

Existing PS instances in France

- CC-IN2P3, Lyon
  - ◆ PS-PS (3.2.2) 2 x 2
  - ◆ PS-MDM x 2
- GRIF, Ile de France
  - ■ IRFU
    - ◆ PS-PS (3.2.2) x 2
    - ◆ PS-MDM
  - ■ LAL/LPNHE
    - ◆ PS-PS (3.2.1) x 2
  - ■ LPNHE
    - ◆ PS-PS (3.2.x) x 2
- LAPP, Annecy
  - ◆ PS-PS (3.2.1) x 2
- LPC, Clermont
  - ◆ PS-PS (3.2.2) x 2

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