

Top-BDII Topology and High Availability

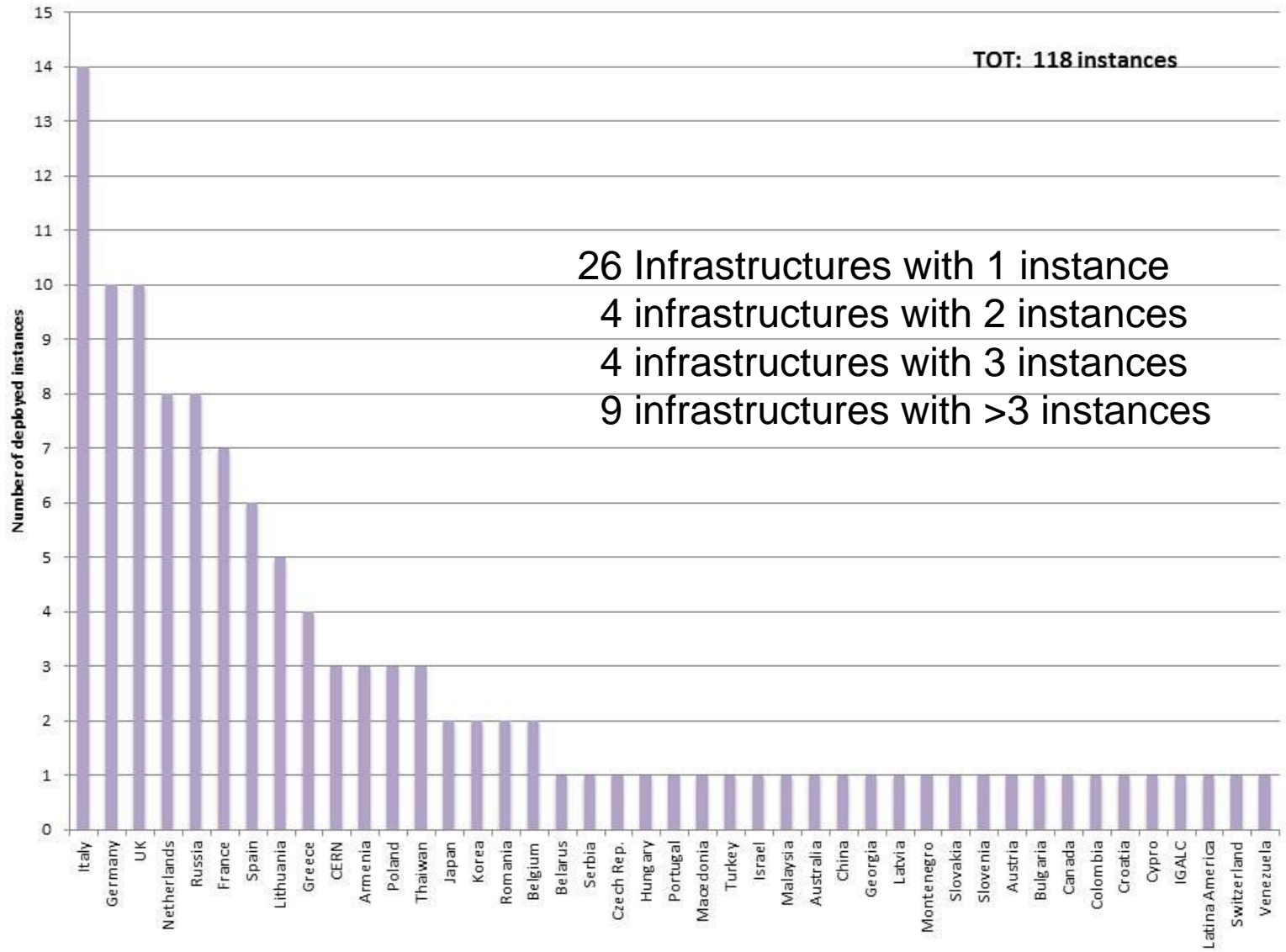
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- Core service needed by all VOs to discover services and get status information → critical for all VOs
- High availability and response time
 - WLCG: 99%, max 10 s
 - WLCG guidelines:
https://twiki.cern.ch/twiki/pub/LCG/WLCGISArea/BDII_Deployment_Plan.pdf
- Performance depends on load and network latency
- How to improve availability?
- How to distribute load?

Top-BDII Deployment



- Proposal
 - Development of a [best-practice](#) on how to run top-BDII in cluster with DNS-based load balancing, and Nagios monitoring for removal of defective instances
 - [Deployment of top-BDII in HA](#) (or improvement of its configuration) in a subset of medium-large infrastructures where still not available ([Group A](#))
 - Implementation of [failover from a client perspective](#) (see next slide)
 - Extension of the availability framework to include BDII in NGI availability monthly statistics
 - Discussion with WLCG

- gLite clients use the LCG_GFAL_INFOSYS variable to determine the default top-bdii at each node (UI, WN, WMS)
- Optional yaim variable (BDII_LIST) to define a list of top-BDIIs to support failover in the GFAL clients
 - Supported: gfal and lcg_utils (storage), lcg-infosites, lcg_info and glite-sd-query (service discovery)
 - FTS?
- Topology: usage of a list of top-bdii (e.g. 3)
 - the first in the list is the default top-bdii of the NGI
 - the second and the third in list depend on network latency
 - Constraints:
 - At least one HA top-BDII (group A) in the list
 - Load is distributed
 - Network latency needs to be minimized
 - Issue: top-bdii instances in the list need to include the same set of information

- Which of the following NGIs are deploying top-BDII in cluster mode?
- Any top-BDII instance dedicated to WLCG?
 - Italy, Germany, Uk, Netherlands, Russia
 - France, Spain, Lithuania, Greece, CERN
 - Armenia, Poland, Taiwan
- Shall we set-up a task force to discuss this?