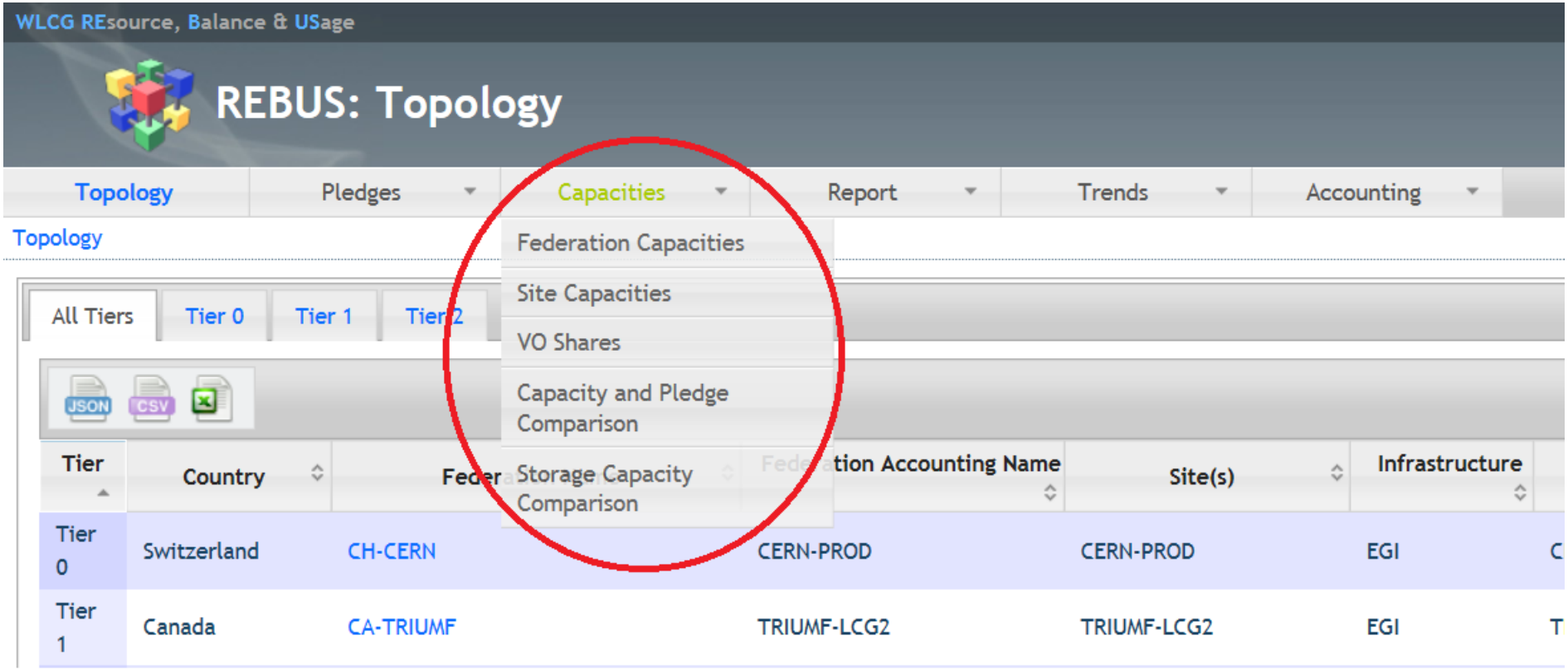
# Proposal to drop Capacity view in REBUS

Information System Task Force

16th June 2016

# What is the capacity view?



# Where are the values taken from?

- The values are taken from the BDII (lcg-bdii) that is queried once per hour
  - Queries are in GLUE 1
  - This is the case for both EGI and OSG
- Moreover, MyOSG is queried also once per hour and some values are added
  - Using the MyOSG Vofeed:

    http://myosg.grid.iu.edu/rgsummary/xml?datasource=summary&summary_attrs_showwlcg=on&all_resources=on&gridtype=on&gridtype_1=on&active=on&active_value=1&disable_value=1
  - And it overwrites what has been collected from the BDII if the site appears in both BDII and MyOSG (see known issues!)
- No validation or consistency check is performed

# Capacity views in REBUS

- Federations Capacities

  https://rebus.cern.ch/apps/capacities/federations/
- Sites Capacities

  https://rebus.cern.ch/apps/capacities/sites/
- VO shares

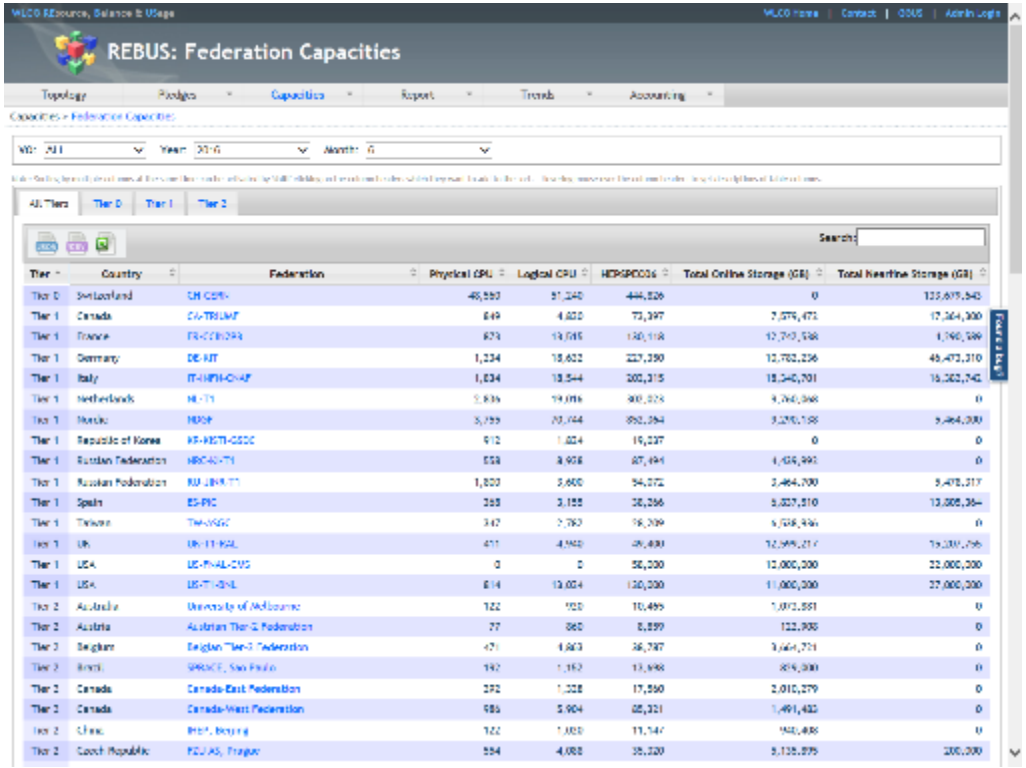
  https://rebus.cern.ch/apps/capacities/vo_shares/
- Pledge and Capacity comparison

  https://rebus.cern.ch/apps/capacities/pledge_comparison/
- Storage Capacity Summary

  https://rebus.cern.ch/apps/capacities/site_storage/

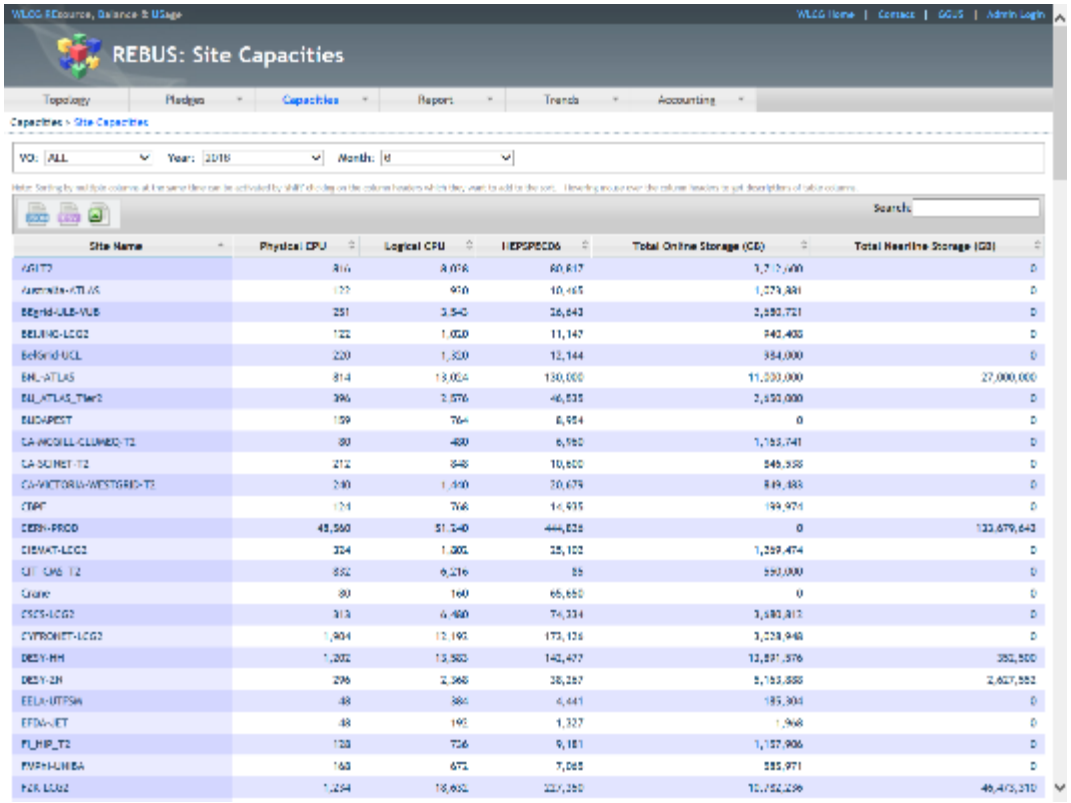
# Federations Capacities

- Aggregation of capacities published by the sites within the federation



# Sites Capacities

- BDII variables:
  - Sum of all the SubClusters in the site:
    - GlueSubClusterLogicalCPUs
    - GlueSubClusterPhysicalCPUs
    - GlueProcessorOtherDescription
  - Sum of all the SEs in the site:
    - GlueSETotalOnlineSize
    - GlueSETotalNearlineSize
- MyOSG variables:
  - HEPSPEC
  - StorageCapacityMin
  - StorageCapacityMax

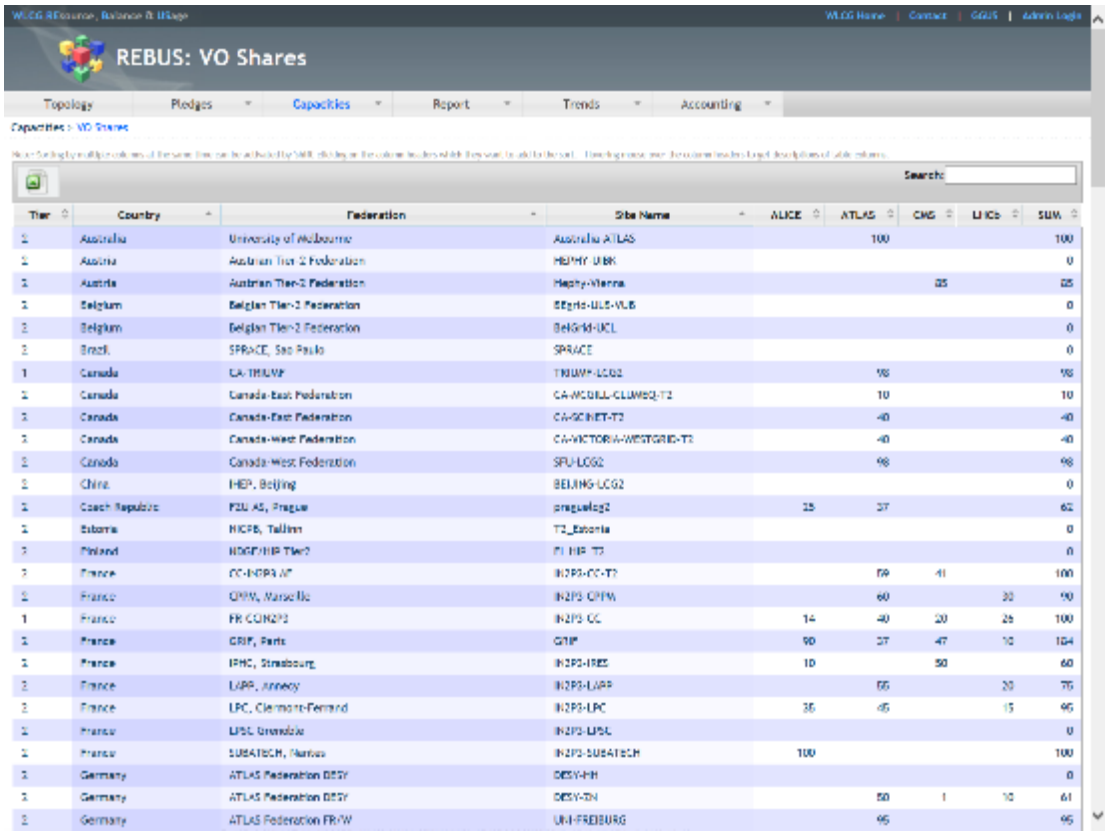


# Historic Information

- Both site and federation capacities can show an historic value as well:
  - Selecting year and month
  - In that case, an average of the values published during the selected month is shown

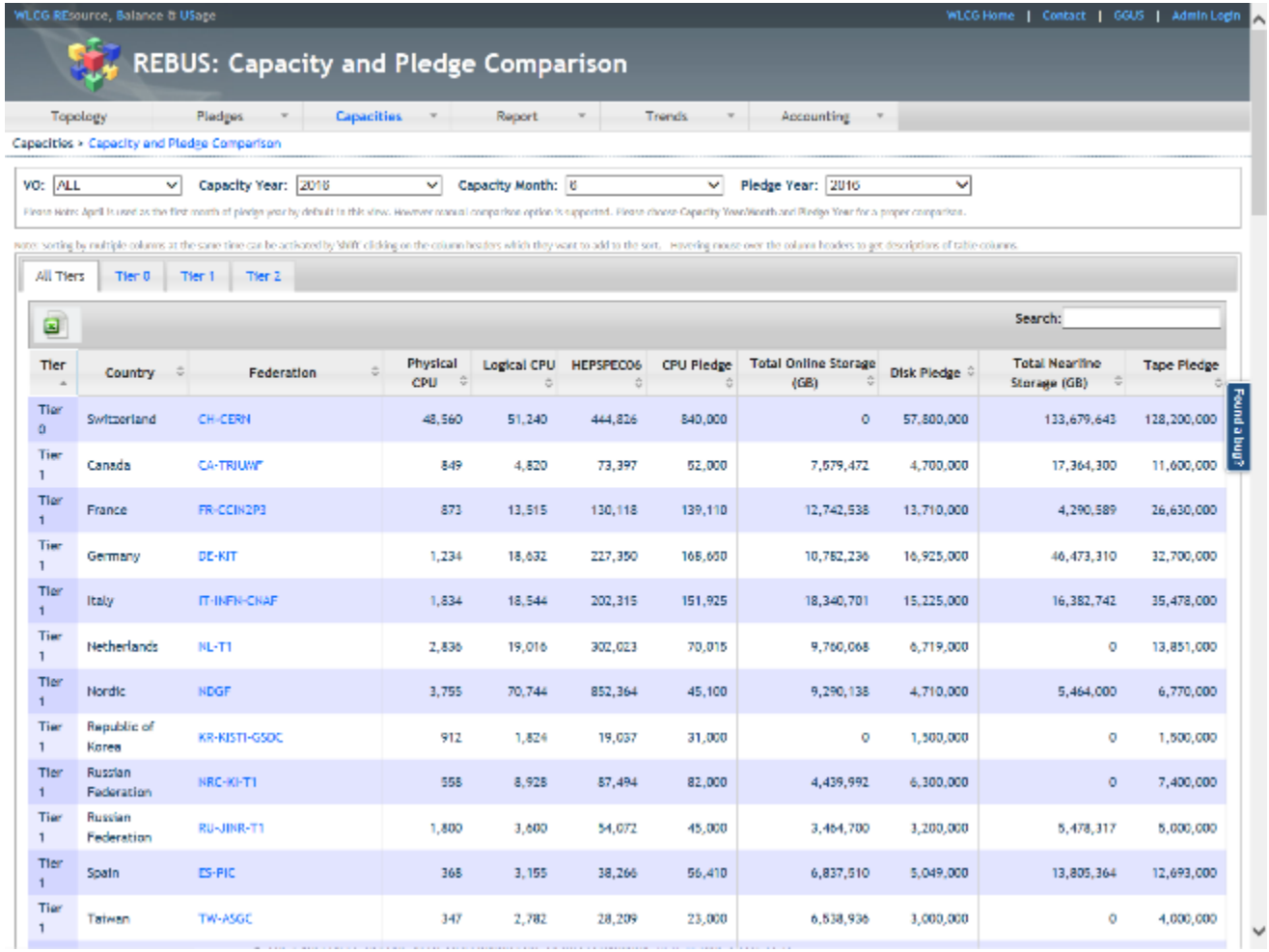
# VO shares

- BDII variables:
  - For EGI sites:
    - GlueCECapability
  - For OSG sites:
    - GlueSiteSponsor




| Tier | Country | Federation | Site Name | ALICE | ATLAS | CMS | LHCb | SUM |
|---|---|---|---|---|---|---|---|---|
| 2 | Australia | University of Melbourne | Australia ATLAS | | 100 | | | 100 |
| 2 | Austria | Austrian Tier 2 Federation | HEPHY-UIBK | | | | | 0 |
| 2 | Austria | Austrian Tier-2 Federation | Hephy-Vienna | | | 85 | | 85 |
| 2 | Belgium | Belgian Tier-2 Federation | BEgrid-ULB-VUB | | | | | 0 |
| 2 | Belgium | Belgian Tier-2 Federation | BeGrid-UCL | | | | | 0 |
| 2 | Brazil | SPRACE, Sao Paulo | SPRACE | | | | | 0 |
| 1 | Canada | CA-TRIUMF | TRIUMF-LCG2 | | 98 | | | 98 |
| 2 | Canada | Canada-East Federation | CA-MCGILL-CLUMEQ-T2 | | 10 | | | 10 |
| 2 | Canada | Canada-East Federation | CA-SCINET-T2 | | 40 | | | 40 |
| 2 | Canada | Canada-West Federation | CA-VICTORIA-WESTGRID-T2 | | 40 | | | 40 |
| 2 | Canada | Canada-West Federation | SFU-LCG2 | | 98 | | | 98 |
| 2 | China | IHEP, Beijing | BEIJING-LCG2 | | | | | 0 |
| 2 | Czech Republic | FZU AS, Prague | praguelcg2 | 25 | 37 | | | 62 |
| 2 | Estonia | NICPB, Tallinn | T2_Estonia | | | | | 0 |
| 2 | Finland | NDGF/HIP Tier2 | FI_HIP_T2 | | | | | 0 |
| 2 | France | CC-IN2P3 AF | IN2P3-CC-T2 | | 59 | 41 | | 100 |
| 2 | France | CPPM, Marseille | IN2P3-CPPM | | 60 | | 30 | 90 |
| 1 | France | FR CCIN2P3 | IN2P3-CC | 14 | 40 | 20 | 26 | 100 |
| 2 | France | GRIF, Paris | GRIF | 90 | 37 | 47 | 10 | 184 |
| 2 | France | IPHC, Strasbourg | IN2P3-IRES | 10 | | 50 | | 60 |
| 2 | France | LAPP, Annecy | IN2P3-LAPP | | 55 | | 20 | 75 |
| 2 | France | LPC, Clermont-Ferrand | IN2P3-LPC | 35 | 45 | | 15 | 95 |
| 2 | France | LPSC Grenoble | IN2P3-LPSC | | | | | 0 |
| 2 | France | SUBATECH, Nantes | IN2P3-SUBATECH | 100 | | | | 100 |
| 2 | Germany | ATLAS Federation DESY | DESY-HH | | | | | 0 |
| 2 | Germany | ATLAS Federation DESY | DESY-ZN | | 50 | 1 | 10 | 61 |
| 2 | Germany | ATLAS Federation FR/W | UNI-FREIBURG | | 95 | | | 95 |

# Capacity and Pledge Comparison



WLCG REsource, Balance & USage — WLCG Home | Contact | GGUS | Admin Login

REBUS: Capacity and Pledge Comparison

Topology | Pledges | Capacities | Report | Trends | Accounting

Capacities > Capacity and Pledge Comparison

VO: ALL  Capacity Year: 2018  Capacity Month: 6  Pledge Year: 2018

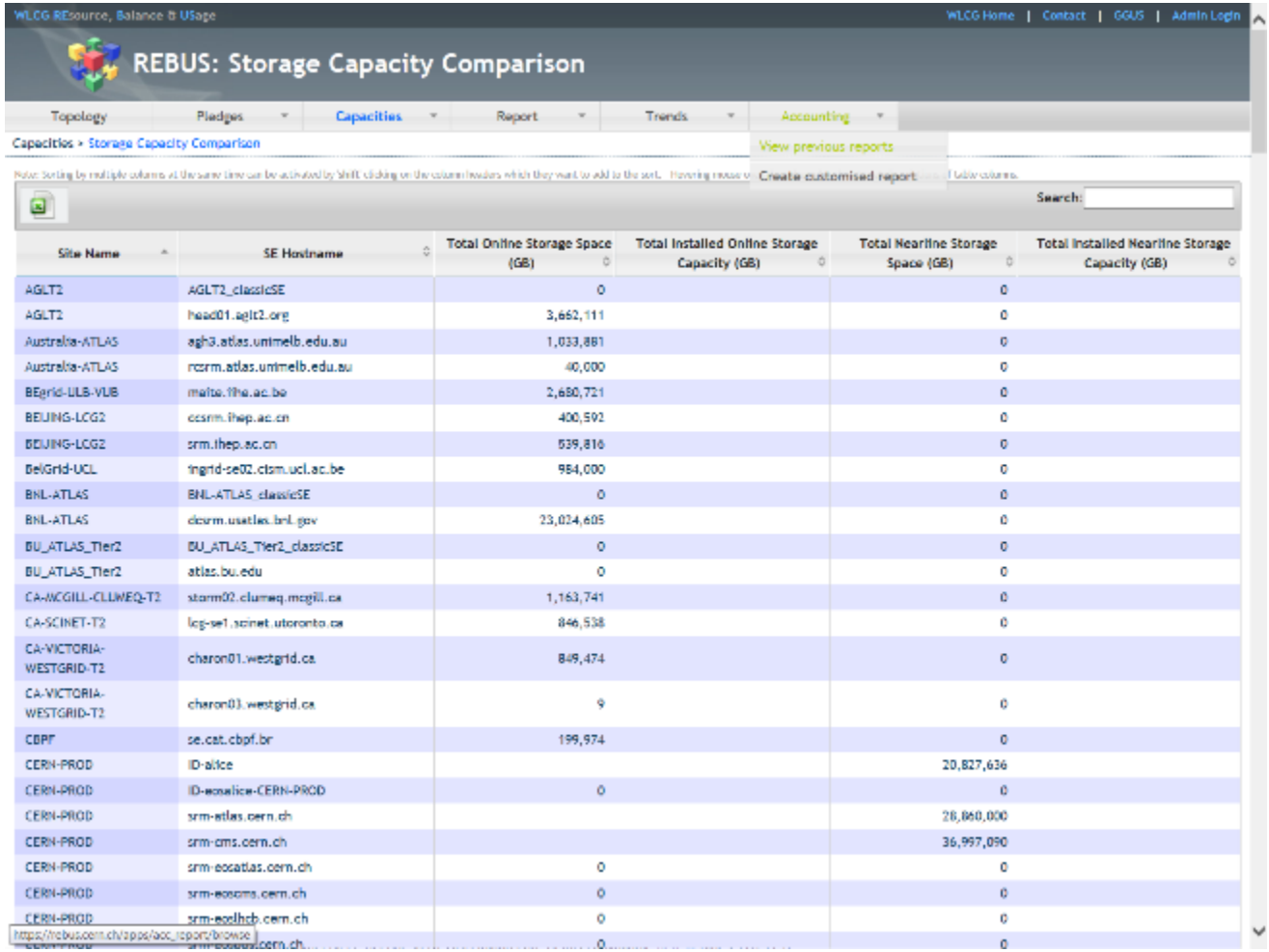
All Tiers | Tier 0 | Tier 1 | Tier 2

Search:

| Tier | Country | Federation | Physical CPU | Logical CPU | HEPSPEC06 | CPU Pledge | Total Online Storage (GB) | Disk Pledge | Total Nearline Storage (GB) | Tape Pledge |
|---|---|---|---|---|---|---|---|---|---|---|
| Tier 0 | Switzerland | CH-CERN | 48,560 | 51,240 | 444,826 | 840,000 | 0 | 57,800,000 | 133,679,643 | 128,200,000 |
| Tier 1 | Canada | CA-TRIUMF | 849 | 4,820 | 73,397 | 62,000 | 7,579,472 | 4,700,000 | 17,364,300 | 11,600,000 |
| Tier 1 | France | FR-CCIN2P3 | 873 | 13,515 | 130,118 | 139,110 | 12,742,538 | 13,710,000 | 4,290,589 | 26,630,000 |
| Tier 1 | Germany | DE-KIT | 1,234 | 18,632 | 227,350 | 168,600 | 10,782,236 | 16,925,000 | 46,473,310 | 32,700,000 |
| Tier 1 | Italy | IT-INFN-CNAF | 1,834 | 18,544 | 202,315 | 151,925 | 18,340,701 | 15,225,000 | 16,382,742 | 35,478,000 |
| Tier 1 | Netherlands | NL-T1 | 2,836 | 19,016 | 302,023 | 70,015 | 9,760,068 | 6,719,000 | 0 | 13,851,000 |
| Tier 1 | Nordic | NDGF | 3,755 | 70,744 | 852,364 | 45,100 | 9,290,138 | 4,710,000 | 5,464,000 | 6,770,000 |
| Tier 1 | Republic of Korea | KR-KISTI-GSDC | 912 | 1,824 | 19,037 | 31,000 | 0 | 1,500,000 | 0 | 1,500,000 |
| Tier 1 | Russian Federation | NRC-KI-T1 | 558 | 8,928 | 87,494 | 82,000 | 4,439,992 | 6,300,000 | 0 | 7,400,000 |
| Tier 1 | Russian Federation | RU-JINR-T1 | 1,800 | 3,600 | 54,072 | 45,000 | 3,464,700 | 3,200,000 | 5,478,317 | 5,000,000 |
| Tier 1 | Spain | ES-PIC | 368 | 3,155 | 38,266 | 56,410 | 6,837,510 | 5,049,000 | 13,805,364 | 12,693,000 |
| Tier 1 | Taiwan | TW-ASGC | 347 | 2,782 | 28,209 | 23,000 | 6,538,936 | 3,000,000 | 0 | 4,000,000 |

Found a bug?

# Storage Capacity Comparison




| Site Name | SE Hostname | Total Online Storage Space (GB) | Total Installed Online Storage Capacity (GB) | Total Nearline Storage Space (GB) | Total Installed Nearline Storage Capacity (GB) |
|---|---|---|---|---|---|
| AGLT2 | AGLT2_classicSE | 0 | | 0 | |
| AGLT2 | head01.aglt2.org | 3,662,111 | | 0 | |
| Australia-ATLAS | agh3.atlas.unimelb.edu.au | 1,033,881 | | 0 | |
| Australia-ATLAS | rcsrm.atlas.unimelb.edu.au | 40,000 | | 0 | |
| BEgrid-ULB-VUB | malte.ihe.ac.be | 2,680,721 | | 0 | |
| BEIJING-LCG2 | ccsrm.ihep.ac.cn | 400,592 | | 0 | |
| BEIJING-LCG2 | srm.ihep.ac.cn | 539,816 | | 0 | |
| BelGrid-UCL | ingrid-se02.cism.ucl.ac.be | 984,000 | | 0 | |
| BNL-ATLAS | BNL-ATLAS_classicSE | 0 | | 0 | |
| BNL-ATLAS | dcsrm.usatlas.bnl.gov | 23,024,605 | | 0 | |
| BU_ATLAS_Tier2 | BU_ATLAS_Tier2_classicSE | 0 | | 0 | |
| BU_ATLAS_Tier2 | atlas.bu.edu | 0 | | 0 | |
| CA-MCGILL-CLUMEQ-T2 | storm02.clumeq.mcgill.ca | 1,163,741 | | 0 | |
| CA-SCINET-T2 | lcg-se1.scinet.utoronto.ca | 846,538 | | 0 | |
| CA-VICTORIA-WESTGRID-T2 | charon01.westgrid.ca | 849,474 | | 0 | |
| CA-VICTORIA-WESTGRID-T2 | charon03.westgrid.ca | 9 | | 0 | |
| CBPF | se.cat.cbpf.br | 199,974 | | 0 | |
| CERN-PROD | ID-alice | | | 20,827,636 | |
| CERN-PROD | ID-eosalice-CERN-PROD | 0 | | 0 | |
| CERN-PROD | srm-atlas.cern.ch | | | 28,860,000 | |
| CERN-PROD | srm-cms.cern.ch | | | 36,997,090 | |
| CERN-PROD | srm-eosatlas.cern.ch | 0 | | 0 | |
| CERN-PROD | srm-eoscms.cern.ch | 0 | | 0 | |
| CERN-PROD | srm-eoslhcb.cern.ch | 0 | | 0 | |

# Known Issues

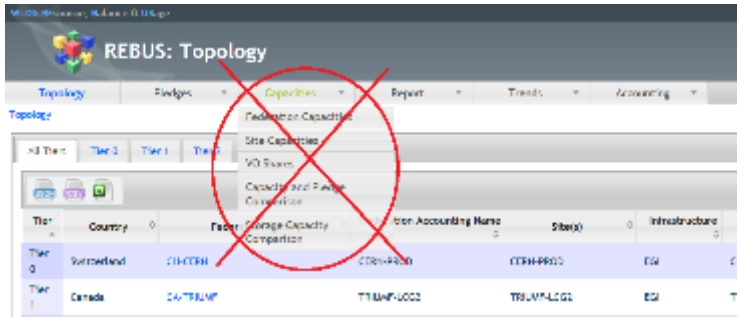
- REBUS assumes that in case two or more GlueSublcusters in a site publish the same number in GlueSubClusterLogicalCPUs, this is doublecounting and it takes into account the value only once
- If the foreign key attribute (site) in GlueSE doesn’t match the actual GOCDB site name, the SE is not taken into account
- Sites that appear in both BDII and MyOSG, get their BDII values overwritten by MyOSG values
- MyOSG doesn’t publish LogicalCPUs and PhysicalCPUs, therefore, these values are only published for OSG sites if they are published in the BDII

# Motivations to drop capacity view

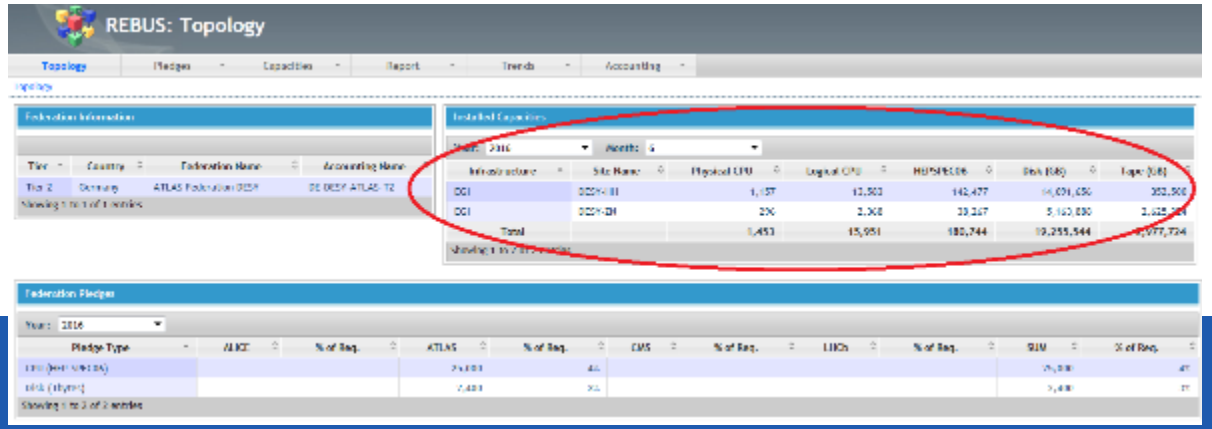
- REBUS is just republishing information that is available in BDII/MyOSG
  - Offering a set of in principle interesting attributes through the webUI
- However, it adds a complex internal logic that prevents from showing exactly what BDII publishes
  - This is very confusing for sites
- Moreove LHC experiments do not rely on REBUS

# Proposal

- Remove the capacity tab from the main menu




- Adjust federation information showing today a summary of sites capacities by just including a list of sites belonging to the federation



# Additional material

- https://twiki.cern.ch/twiki/bin/view/EGEE/AllAboutREBUS